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Scottish Wind Energy Policy: the Role and the Capacity of Scottish Interest Groups to Create a Policy 'Space' in which to Develop the Policy for Wind Energy in Scotland

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Abstract: In 2011 and 2007, the SNP Government in Scotland was elected on a manifesto committed to increased powers for the Scottish Parliament and ultimately independence and developing renewable energy. However, the existing powers of the Scottish Parliament are limited in the field of energy which is largely a responsibility retained by Westminster. The prospect for advancing Scotland's renewable energy, at least distinct from UK policy, presents challenges. It is the main task of this paper to examine how and whether Scottish interest groups and the Scottish Government may act to create a policy 'space' in which to develop the policy with regards to wind energy. In particular, the paper examines how and whether Scottish policy actors (e.g. industrial actors and Non-Governmental Organisations) and the Scottish Government may use the Scottish devolved powers (e.g. planning decisions) to direct the Scottish wind energy policy independently from the UK Government.

  Research has followed an interdisciplinary approach covering both the political and technological aspects of wind energy. Furthermore, theoretical framework has been coupled with empirical evidence collected through a wide range of interviews including representatives of business groups, pressure groups and governmental agencies acting in Scotland. The ultimate goal is to develop a fresh and modern understanding of regional policy development as multidisciplinary and multi-actor task that covers the contemporary political and social dynamics together with the great technological progress of our era.

Keywords: Wind energy; Scottish devolution; Policy image; Venue shopping

Introduction

  Aalto and Westphal (2008) refer to the regional politics of energy as a modern approach to energy policy. This approach, Aalto and Westphal argue, focuses on how decisions at the strategic level have an impact on regional actors through the division of

competences as well as how politics at the regional level affect strategic decisions and implementation of policies set at the top. Interrelationships between strategic and regional levels are then divided into cooperative and conflicting patterns, with the first portraying the regions serving as the most active ground for testing new initiatives and strengthening policies set at the strategic level and the second characterising the regions "going against the logic and the provisions of the energy dialogue set at the strategic level" (2008, p. 81). This paper follows such an approach to energy policy. However, the term 'region' in Aalto and Westphal's work is perceived as a broad geographical area, incorporating several parts of different states as well as whole states too. Such a perception is beyond the scope of this paper, which seeks to examine the potential regional actors and groups within the same state entity have to influence the state's energy strategy.

In doing so, the paper will begin its analysis providing the theoretical underpinnings for the role of interest groups in contemporary policy making. An analysis of the UK's wind energy resource together with an investigation of the wind power technology will then follow. The purpose is to approach the issue of wind energy development through a technical perspective, which provides secure and realistic answers with regards to the present and future potential for the wind energy sector in Scotland. The third part of the paper will comprise of an analysis of the electricity generation in the UK. This is an effort to investigate the energy policy instruments currently in place as well as the boundaries to the policy (e.g. policy commitments). Finally, the paper will proceed with empirical evidence gathered from the ground via a series of qualitative interviews with Scottish policy actors. Interview data together with the technical data and the theory analysed in the previous parts of the paper will enable us to depict how (and whether) Scotland may deploy its wind energy potential according to its own interests and priorities.

1. The Role of Interest Groups in Policy Making

1.1. Conflict of Interests as the Constitution of Politics and Policy Making Process

Arthur Bentley, writing the book "The Process of Government: A Study of Social Pressures" (1908), placed interest groups at the heart of politics and policymaking process in the governmental system. For Bentley, all politics and all government are the result of activities of groups. Any other explanation of how politics works is condemned to failure. Political process, Bentley argues, is a balancing of quantity against quantity, and political phenomena are all phenomena of masses of men, thinking, feeling and acting men. Thus, when researching political phenomena, Bentley suggests, one never needs to go outside these masses of men.

The problem, Bentley notes, is that often the same people are amongst the components of more than one group and "perhaps they find themselves in one group puling against themselves in another group" (p. 203). Because of this problem, Bentley continues, it's much preferred to try to hold groups apart in terms of facts than in terms of logic, which makes the job almost impossible. It's the business of the student/investigator to plot the courses followed by the groups and "when he does that, he will find that he has all together, the group, the activity, and the interest" (p. 214).

Nevertheless, the whole social life, Bentley argues, has to be stated in such groups of men if a useful analysis is to be done, with this analysis being more than a classification, as this term is ordinarily used, because when "the groups are adequately stated, everything is stated" (p. 208).

1.2. Policy Dynamics or How a Model Alone Is Not Enough

Pluralism's theoretical fundamentals lie vastly in Bentley's work. From the pluralist perspective, interest groups are an indispensable part of modern democracy (Wilson, 1990) in the sense that they provide access to the political system (Grant, 1989), while competition among interests "produce[s] policies roughly responsive to public desires, and no single set of interests will dominate" (Loomis & Cigler, 2007, p. 5).

However, the role of government as an impartial, mere referee under the pluralistic model has been heavily criticised or rejected for being unrealistic (Dahl and Lindbloom, in Kingdom, 2003). Neopluralism can be seen as a revised form of classical pluralism in that it acknowledges that the distribution of power in modern societies can be imperfect, with privileged interests persisting over the less established ones (Heywood, 2000). Thus, Kingdom (2003) argues, neopluralists offer a more realistic picture of the arena in which groups bargain with each other as well as with the government, where each public policy area encompasses a wide spectrum of actors such as politicians, interest groups, civil servants and professional lobbyists, forming policy communities, sub-governments and policy networks. The notion of a policy community, Grant notes with regards to the UK, "represents a useful adaption of the pluralist notion of distinct issue areas to the particular circumstances of modern British government" (1989, p. 30).

Richardson's central thesis is that there has been a shift from a world dominated by stable networks of tightly knit policy communities, to a more messy, unpredictable and diverse net of groups and actors, which is characterised by various "policy or cultural frames through which they view the real world" (2000, p. 1008). Thus, Richardson concludes, policy sectors which used to be dominated by particular groups are now becoming rather 'overcrowded' with stakeholders from other policy communities demanding and succeeding in getting entry (2000). Policy communities in other words have become highly fluid, and actors mobilise accordingly as issues change (Kingdom, 2003).

An alternative interpretation of group politics is the corporatist model. Here, corporatist relationships involve more than close and intense consultation of the government with selected interest groups: a corporatist structure offers business and labour a share in the policy-making and a great role in implementing of policy (Grant, 1989).

Still, while corporatism was a useful explanatory model of policy-making during the 1960s and 1970s, it is difficult to generalise from that period of time and use corporatism as the explanatory theory to interpret and describe the general role of interest groups in British politics (Dearlove & Saunders, 2000). Beyond the 'cosy' politics of incorporated interests a pattern of "competitive, or neopluralist, politics does continue to bubble away with respect to certain issues and at certain levels of the state", as well as the fact that unincorporated politics of new social movements and direct

action have gained substance too (Dearlove & Saunders, 2000, p. 226). By 2002, Wyn Grant (by lecture, in Jones & Kavanagh, 2003), came also to accept that outsider groups have usurped the dominance of insider groups by massively and noisily filling the streets and putting direct pressure on policy formulation with varying effects.

Grant's lecture is rather in line with Richardson's argument that there has been a shift from a world of policy-making dominated by stably structured communities and networks, to policy-making processes, inhabited by loosely structured and unpredictable collections of stakeholders that "may be a 'network' only in the very loosest of senses" (2000, p. 1008).

1.3. Arenas without Rules & the Multi-Level, Multi-Arena Game

Baumgartner and Jones (1993, 2002) also urge for a new perspective of contemporary politics, where the interaction between ideas (images) and institutions (venues) produces 'punctuated equilibria', capable to shock the political system and result dramatic, non-incremental change. Baumgartner and Jones' core arguments place ideas and public debate at the centre of policy change.

Most often nowadays, Baumgartner and Jones argue, policy-makers are called to make decisions upon complex, multi-dimensional issues, such as environmental protection, nuclear power production, and human rights. It is practically impossible for policy-makers to pay equal attention to every aspect of such complex issues, so most of them, when they must make decisions, focus on only a few underlying dimensions. It is often the case that decision-makers are challenged and forced to shift attention onto another dimension, previously ignored. This might be due to a recent change in the agenda, a crisis, the delivery of new knowledge, or simply because of the actions of another decision-maker. When this happens, decision-makers as well as the public can change their minds on the issue debated, even without having changed their minds on the underlying dimensions of choice. This is simply because the weight of the debate has shifted towards new dimensions previously ignored or unknown.

Fewer issues, Baumgartner and Jones (2002) describe, can now be easily assigned to a single committee because of the complexity of the new issues, whilst as committee chairs attempt to define issues in a way that they fall into their committees' sphere of jurisdiction, overlapping committee jurisdictions are becoming increasingly common. Clearly, Baumgartner and Jones add, "there are limits to this struggle" (2002, p. 298), however, policymaking authority is not automatically assigned to particular institutional venues but instead, they note, "how an issue gets assigned to a particular arena of policymaking is just as much a puzzle as how an issue comes to be associated with one set of images", (the term policy image refers to how a policy is understood and discussed), "rather than another" (1993, p. 32). So policy entrepreneurs may stress one attribute in a policy debate, but other participants may prefer to focus attention on another attribute of the issue, and perhaps turn to another venue too; and as a single issue may at times have multiple images and thus may fall within the jurisdictions of several venues, policy advocates have more chances of being heard on their preferred issue (1993, 2002). Of course, Baumgartner and Jones (2002) note, being heard does not necessarily mean issues will be addressed, and often, where issues are complex and many venues intervene, the potential consequence is gridlock, unless some system of

deference emerges so that multiple policy access points provide dynamism and provoke policy change. However, the general point that "issue complexity both opens more venues for policy action and makes action more difficult" does apply to these policy making systems that harbour multiple venues with some independence of policy action, like the U.S. federal system and increasingly the European Union (2002, p. 299).

Baumgartner and Jones' call for the significance of issue 'framing' as the causal force of radical policy change to be realised is met by Richardson's work. Thus, Dudley and Richardson's (1998) argument is that, subject to conditions, an institutional arena can function as an effective site for policy agents seeking policy change. Basic conditions required for this to happen are for policy entrepreneurs to bring new knowledge and ideas to the policy debate and so 'frame' existing policy problems differently, attempting to access 'arenas without rules' and challenge existing policies. Where entry to a policy arena is not permitted or ceased to be seen as effective, policy entrepreneurs can move to other institutional sites, where chances to challenge existing policy ideas, hence to succeed in policy change, are higher. The more knowledge and ideas policy actors acquire, the more available ways they possess to 'frame' a policy problem. The more policy 'frames' policy-makers may come up with, the more arenas (or venues) they can refer to. Therefore "politics increasingly becomes a multi-level, multi-arena game" (Baumgartner & Jones (1998), p. 729). The relationship between ideas and institutions is seen as a 'spark' for policy change over time, and the major shifts in the direction of policy are changes in the 'policy flow' (Dudley & Richardson, 1998).

The EU's fragmented multi-level structures mean to provide ease of access to a wide range of interests groups (Greenwood, 2003) so that the centre of gravity of lobbying is believed to have long shifted to Brussels (Mazey & Richardson, 1993). The Commission for instance is a venue especially permeable to interest groups of all kinds thereby helping strengthen its claim to legitimacy (Richardson, 2000). Still, the Euro-policy game, Richardson notes, is far from permitting a player or coalition of players to control the policy game because no single actor can easily dominate a game where so many different players participate. While even if a set of groups, Richardson continues, seems to contain an issue within its favourable 'frame' of reference at a given institutional arena excluded actors can easily re-open the debate elsewhere.

In fact, when interest groups who are members of a policy community fail to achieve significant change in agenda-setting, policy adoption, or policy implementation, they have two basic options: they can accept defeat, hoping to win on another issue at some future policy battle, or they can look for alternative policy venues whose 'frames' of reference they can try to challenge, injecting them with fresh ideas and manipulated policy images (Richardson, 2000). Because policy institutions differ from one another on several dimensions such as "their rules of access and participation, their procedures governing decision-making, their constituencies, and the incentives facing institutional actors", interest groups need to develop strategies of venue shopping as well as strategies of moving issues into new policy arenas targeting the ones offering the best advantage over their opponents (Pralle, 2003, p. 237).

It is interesting to see how the ideas of policy images and the venue shopping applied in the Scottish and the UK political systems may assist Scottish policy actors to influence the wind energy policy game. However, before we do so, it is important to address wind energy in terms of its technological characteristics and present any

advantages of Scotland's wind resource in relation to the rest of the UK. This will provide secure and realistic answers with regards to the present and future potential for the wind energy sector in Scotland.

2. Wind Energy: the Resource and the Technology

2.1 The Resource

The 'Wind Power and the UK Wind Resource' report (2005) by the Environmental Change Institute at Oxford University shows that the UK has the best wind resource in Europe. The report, commissioned by the British Department of Trade and Industry, analysed hourly wind speeds collected by the Met Office at 66 locations across the UK during the period 1970 to 2003. With a minimum of 45 sites providing valid data for each hour, this is the most extensive research of the UK's wind resource to date and it is hugely significant because the wind, being the fuel for the wind-generated electricity, with its strength, presence, absence and variability, determines both how much electricity can be generated and how reliable this electricity will be in meeting the electrical grid's demand patterns. The report also indicates that there is a positive relationship between average hourly wind power potential and hourly electricity demand in the UK and that this relationship is not random. Finally, the report concludes that the wind conditions in the UK are significantly stronger than those in Denmark and Germany, countries at the top of the wind energy market in Europe. All of this data would seem to point to the fact that wind power is a very real option and opportunity for the UK.

Of course, this is positive news for the UK as a whole, given the worldwide recognition that 'green' energy sources like wind are becoming increasing vital as other sources are recognised as pollutants or are running out. It raises the need however for diversity in the sites where the wind turbines are located, given that a diversified wind generation system permits different wind turbines to be exposed to a range of wind conditions across the UK, this making maximum use of the energy potential. Diversification though does not mean that wind turbines should be scattered randomly across the UK. The purpose of a diversified system is certain and aims to increase the electrical grid's reliability and decrease variability of the generated wind power.

2.1.1 Wind Farm Allocation

This raises the question of where best to locate wind farms. Of course, one main factor for selecting a location is the site's wind resource. With an annual mean wind speed of roughly 7m/s for England and Wales and 8m/s for Scotland the choices for locations look, at a first sight, to be numerous. However, sites must also be analysed according to whether they are onshore or offshore. So speaking of onshore developments, the mean wind speed of Scotland is significantly higher than the mean wind speed of England, about a metre per second higher, and that implied a lot of power since the energy content of the wind follows a cubic relationship to the wind speed (Leithead, 2008). However, while onshore there is a significant advantage for Scotland, offshore is less so. Both Scotland and England have excellent offshore wind resource.

Two further aspects regarding location must be considered though: first, the geography of the offshore sites and second, the distance of the onshore and offshore sites to the areas of the highest electricity consumption. Offshore wind power technology requires fairly shallow seas because sitting wind turbines in very deep sea poses technical challenges. Also sitting wind turbines far from the land increases the cost of subsea cables. Both Scotland and England have good offshore sites with shallow waters. An important point though is that generating wind power offshore to where it is required, which is the south of England, is preferred to generating it offshore far from where it is required (Leithead, 2008). Bearing this in mind, as well as the fact that offshore wind farms enjoy higher public acceptance than the onshore farms ("out of sight, out of mind" as Professor Leithead puts it), offshore sites around rural southern England seem an obvious choice for the UK. A major downside of offshore wind farm development however is its cost, currently a lot higher of onshore development.

A final point to be considered is that Scotland has a lot more open land than the more densely populated England, adding to any advantage that Scotland has over to England in terms of onshore wind resource. This doesn't mean that building onshore wind farms in Scotland does not raise issues in terms of proximity to communities, but potentially, there is more chance of finding a usable site in the vast open land of Scotland, which also happens to have a greater wind potential, than in the more crowded England. Taking also into account that onshore wind energy is far cheaper to generate than offshore, the overall advantage gap widens.

2.2 Wind Energy Technology

2.2.1 Wind Turbines

Although research on wind turbine design continues, there is a perception that some design limits are being approached (Economist, June 21st 2008). Professor Leithead confirms that modern wind turbines can exceed 45% efficiency.

State-of-the-art wind turbine design has also increased reliability of the wind turbines with the downtime for an average wind turbine currently being less than 3%, while back in 2002 the average turbine was out of commission 15% of the time (Economist, June 21st 2008).

What research tries to tackle today are the problems stemming from the rapid increase of wind turbines sizes [European Wind Energy Association (EWEA), 2008a].

2.2.2 Electricity Network Infrastructure

Even if technology is improved enough to cope with the huge stretches modern wind turbines face and if the significant costs of sea cabling for offshore networks are ignored, the impact of large amounts of wind power on the national grid needs to be assessed, and currently it is the case that the necessary infrastructure is not available. In addition to the absence of offshore grids, current onshore transmission networks cannot accommodate some of the most ambitious plans for offshore wind farm deployment. Increasingly, large offshore projects will be treated as "power plants" to be integrated in the same way as conventional power stations. This will certainly necessitate both national and cross border network upgrades, raising the need for infrastructure investment (EWEA, 2007e).

In Britain, the National Grid owns and maintains the high voltage electricity transmission system in England and Wales while the transmission system in Scotland is owned by Scottish Power Transmission (central and southern Scotland) and Scottish Hydro-Electric Transmission Ltd (northern Scotland). ScottishPower's transmission network is interconnected with the transmission networks of Scottish Hydro-Electric Transmission Ltd, National Grid Company and Northern Ireland Electricity. The low voltage distribution network in Britain is operated by several Distribution Network Operators (DNOs), currently twelve in England and two in Scotland (ScottishPower, and Scottish and Southern Energy).

A briefing for the Scottish Parliament Information Centre (SPICe) in 2004 clarifies the need to upgrade the transmission and distribution networks in the UK, particularly in more remote areas, in order to be able to accommodate the increased power generation from renewable resources (Reid, 2004). The same report, referring to the Scottish Executive's Renewable Energy Network Study (2001), points out that although there is the capacity available to connect around 1GW of new capacity without upgrades, this is not enough to fulfil the Scottish Executive's ambitious target that 40% of Scottish electricity consumed should come from renewable sources by 2020.

The British electricity network has developed around large-scale fossil fuel, hydro and nuclear generating stations, usually more than 1000MW generating capacity (Reid, 2004). This network is not particularly well suited for gathering lots of wind power in the north of Scotland and transmitting it to where it's going to be used (Leithead, 2008). If you're going to generate large amounts of wind, you've got to consider how this is going to reach the consumer, and that we're going to need to restructure the grid in some way or another. But then it comes down to the question of who pays for it (Leithead, 2008).

Finally, the expansion cost of the electricity networks is not the sole barrier to the large-scale deployment of wind power. To manage a large-scale fluctuating production, the grid infrastructure and interconnections should be extended and reinforced through strong planning.

2.2.3 Building a Super Grid

In addition to the extension and reinforcement of the existing transmission grid, further investigation is suggested as whether an offshore grid could help with the integration of the upcoming large offshore wind farms. Legal frameworks should be developed to advance new offshore trans-national connections, eventually establishing an offshore 'super grid' (EWEA, 2008a, p. 22).

Europe already has the basis for a direct current (DC) grid which links Scandinavia, northern Germany and the Netherlands (The Economist, June 21st 2008), and the power system of Great Britain is connected to the Ireland by a DC link (effectively 450MW[1]) and to France by a 2GW[2] DC link. This brings the current interconnection capacity of the British power system in at 4% of the maximum national demand, but there are plans for a third DC link of 1.32GW to connect the south east of England to Holland, which will extend the capacity of the British power system to 5.6 % (EWEA, 2005).

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[1] Megawatt
[2] Gigawatt

The idea of a super grid would enable Scotland to be connected with different countries in Europe, hence electric power to be moved further afield. Because wind, like most renewable sources, is variable, the more interconnected the better (Leithead, 2008). From a purely technical viewpoint these developments are all great, but the real downside is the high cost, and although high voltage DC for long distance transmission has great advantages, it remains very expensive, less than AC, but still very expensive (Leithead, 2008).

2.2.4 Building a Smart Grid

Grids are not only getting bigger. They are also getting smarter. This is through the use of advancing software that monitors constantly and controls preferably the turbine's load, so that it can take particular customers offline (upon prior agreement and in exchange for a cheaper power), thus keeping its load within the limits. This is a clever way of managing the grid's load and it helps to accommodate the variability of the wind and reduce the power peak demand. This however needs time to happen, as apart from a software upgrade, demand site technology would also need to be addressed (Economist, October 10th 2009; US Department of Energy, 2003).

2.2.5 Variability of the Wind

Super and smart grids are technology's answer to the variability of the wind, which is a challenge of the wind power spread. The question remains though as to what we do today when turbines are either up and running but not producing much energy, or not running at all. Companies replied to dilemma by in turn operating in smarter ways. They employ teams of meteorologists to scour the countries for the best places to put turbines, so they place them where they know when and how powerfully the wind blows (Economist, June 21st 2008). It is also the case that while wind might be variable, it is not unpredictable. Meteorologists can produce a forecast of likely wind output, which can be supplied to the grid operators. In addition to this, the way the electricity network is planned ensures backup for a percentage of the produced wind power. Despite this, there is no power plant that is 100% reliable. EWEA (2007a) estimates that over the course of a year, an onshore wind turbine will generate around 30% of its theoretical maximum output (depending on the specific site), with that percentage being higher for offshore turbines.

The output meanwhile of conventional power stations is around 50% (EWEA, 2007a). And because of the faults, breakdowns and even stoppages for maintenance of conventional power plants, the grid operators know how to deal with variability of the power supply (Leithead, 2008). So when wind power supply is up to about 20% penetration, there is very little reserve required, and that an increase to 40% does not raise the necessary reserve by much (Leithead, 2008).

2.3 Current Status of Wind Power in the UK

In the UK, there are a total of 400 operating wind energy projects so far, of which the cumulative installed onshore and offshore capacities are 5.7 GW and 2.6 GW respectively (RenewableUK, 2013). Scotland is leading the generation of electricity

from onshore wind energy, however its offshore potential is not fully exploited where England scores better.

3. Electricity-Generation in the UK: The Way Forward

The UK is facing a looming energy supply gap, as its old nuclear power plants and many of its polluting coal-fired stations are due to close over this decade and will need to be replaced. The cheapest way to tackle this supply gap would be to allow new coal-fired plants to be built, however coal is one of the most polluting industries and its burn releases large amounts of greenhouse gases into the atmosphere, so would prevent the country to meet the national and European targets it has committed to. Oil and natural gas (also fossil fuels) cannot address the UK's energy gap satisfactorily as national production of both is dwindling, are both heavy pollutants, and their use relies on imports from overseas, hence increasing the UK's energy dependence, often on unstable governments. It seems therefore that a switch to renewable and nuclear power resources would be the way to address the looming energy deficiency. This would fit with the fact that in 2009 the UK Government announced the Low Carbon Transition Plan, aiming to cut Britain's greenhouse emissions and rebuild its economy around low carbon energy. The white paper pledged that renewable sources will provide 31% of the total electricity generation by 2020, and nuclear power a further 8% (DEEC, 2009a). Yet the money allocated from the government to this purpose has been criticised as inadequate to the ambition (Economist, July 18th 2009).

The timing for renewable energy investments looks especially bad. The financial crisis that started in 2008 has significantly lowered oil and carbon prices and reduced demand for energy, and the British pound has often plunged forcing many firms to cut back on renewable projects due to the difficulty in securing credit (Economist, April 4th 2009).

According to Professor David MacKay, Cambridge University, "There is a big, big problem compared with a year ago"; and the UK Government Renewable Advisory Board echo this idea in saying that "big utilities are struggling to raise project finance for inshore wind farms, and they were supposed to be the easy projects," (Guardian, March 21st 2009).

Energy does not have to be renewable to be low-carbon. Nuclear power is also low-carbon, and the take-over of British Energy, who run most of the existing nuclear plants in the UK, by EDF, France's biggest electricity company and the world's biggest nuclear operator suggests that new nuclear plants might be built in the UK too. But signs from nuclear power developments abroad are not encouraging, with the cost of building nuclear plants remaining particularly high.

The British Government, via the release in July 2009 of the Low Carbon Transition Plan, committed to wind energy and promised it wants both renewable and atomic energy, though not everyone believes such claims (Economist, July 18th 2009). Public announcements of the wind and nuclear industries before and after the publication of the paper, indicates the two industries are at war, each keen to do the other down (Economist, July 18th 2009; Guardian, July 16th 2009).

The Low Carbon Transition Plan clarifies that the transition to a low-carbon economy will cost many billions of pounds over the next 12 years and that building either wind

turbines or nuclear reactors will mean an increase in electricity prices (DECC, 2009a). In the midst of an economic downturn "people are unlikely to be receptive to a message of voluntary austerity" (Economist, November 22nd 2008, p. 36).

3.1. National Commitments

The UK's electricity generation needs to be in line with the country's national and European commitments.

The 2009/28/EC Directive of the European Parliament and of the Council defines indicative national targets for each member state for share of energy from renewable sources in gross final consumption by 2020. The indicative target set for the UK is 15%, up from 1.3%, which was the actual UK share of energy from renewable sources in 2005.

Further to the European Directive (which clearly define the objectives to be reached, while leaving member states sufficient flexibility to implement the Directives in ways that suit their particular national circumstances best), electricity generation in the UK needs to be in line with the Low Carbon Transition Plan which pledged renewable sources to provide 31% of total electricity generation by 2020 (DEEC, 2009a).

In November 2008 too, the UK Government passed the Climate Change Bill aiming at an 80% reduction in greenhouse emissions from 1990 levels, by 2050. Carbon, according to new law, is treated like money. A UK Committee on Climate Change will recommend five-year carbon budgets for different parts of the economy, which once set, will be legally binding (DEEC, 2009b).

The Scottish Parliament also passed in June 2009 the Climate Change (Scotland) Bill setting a target of 42% reduction of greenhouse gases by 2020, with the power for this to be varied based on expert advice, and an 80% reduction target for 2050. To help ensure the delivery of these targets, the Bill requires that Scottish Ministers set annual targets, in secondary legislation, for Scottish emissions from 2010 to 2050. Scottish Ministers will take advice on the targets they set primarily from the UK Committee on Climate Change, however, the Bill "contains provisions which will allow the Scottish Ministers to establish a Scottish Committee on Climate Change or to designate an existing body to exercise advisory functions should it be decided that this is appropriate" (Scottish Government, 2009a).

The Scottish measures are tougher than the 34% target set by UK Government's Climate Change Act in 2008, which has no statutory annual targets, making them the world's most ambitious greenhouse gas reduction targets.

3.2. Energy Policy Instruments

In 2002 the British Government introduced the Renewables Obligation Order, a mechanism for increasing the proportion of electricity generated from RES. The obligation requires electricity suppliers to source a specific percentage of the electricity they supply to retail customers from RES. For each megawatt hour of renewable energy generated, a tradable certificate, called a Renewables Obligation Certificate (ROC), is issued to the generator. ROCs can be sold to suppliers either with or separately from the electricity generated. In order to meet the targets, suppliers must possess a number of

ROCs matching the percentage of electricity they are obliged to supply from RES in that year. Alternatively, they can choose to pay a fixed sum for each megawatt hour of electricity that falls under the obligation but for which they do not hold a ROC or they can also use a combination of ROCs and buy-out to meet their obligation. The buy-out price is set by the Office of Gas and Electricity Markets (Ofgem), which is the UK regulator for the gas and electricity sectors and it is adjusted annually to reflect changes in the Retail Prices Index. When a supplier chooses to pay the buy-out price, the money they pay is put into the buy-out fund. Following the end of an Obligation period, the buy-out fund is recycled to electricity suppliers in proportion to how many ROCs they have presented. Thus, the system allows the supplier to make competitive decisions on how he will meet the terms of the Obligation, while the Obligation acts as an incentive for investment in renewable energy sources because it increases the profits generators make from their electricity.

An emissions trading system (ETS) is another instrument used by the British government as well as the EU in order to reduce greenhouse gas emissions. The rationale behind emissions trading is to ensure that the emissions reductions required to achieve a pre-determined environmental outcome take place where the cost of the reduction is the lowest. An overall cap on emissions from all participating installations is set and the allowances are divided between the participating installations. Each allowance allows a regulated installation to emit a unit of the relevant emissions (Defra, 2008a & Association of Electricity Producers, 2008). The UK is committed to building on the EU ETS as its main way of pricing carbon in the economy, to ensure emissions are effectively limited (Defra, 2008d).

4. Scottish Wind Energy Policy: A Reality or an Aspiration That Fell Short of the Dream?

Devolution and the emergence of the Scottish Parliament in 1999 "meant that Scotland had arrived as a political entity, albeit an incomplete one" (Lynch, 2001, p. 4). This raises the question of what extent Scottish government is able to influence the UK's policies in areas where policy is not devolved. In particular, the extent to which Scottish groups with a direct interest in wind power may affect the UK's wind energy policy is questioned.

Schedule 5 of the 1998 Scotland Act sets out the matters for which the UK Parliament retains responsibility; these are 'reserved matters'. All other matters which are not specifically reserved are deemed to be devolved; thus, the Scottish Parliament has full legislative competence across a broad range of devolved subjects (Scottish Office, 2009a).

Issues like energy (including generation, transmission, distribution and supply of electricity), nuclear safety, trade and industry (for example competition policy, import and export control and the regulation of business associations, with the exception of charities and particular public bodies established by or under any enactment), social security, financial and economic matters (such as the fiscal, economic and monetary policy and the financial services and markets), national security and the Constitution are, among others, reserved to the UK Parliament (Scottish Government, 2009b). Those policy areas devolved are the environment, planning, natural and built heritage, local

government, health, agriculture, forestry, fishing, housing, social work, education and training, sports, the arts, devolved research, statistics, the Police and Fire services, some aspects of transport, tourism and economic development (Scottish Government, 2009c).

The UK Parliament may continue to legislate on devolved matters in Scotland, however "the distribution of legislative power between Westminster and Holyrood has led to the development of conventions on the admissibility of particular types of business relating to matters primarily within the competence of the 'other' parliament" (Winetrobe, 2007, p. 218). Thus, according to the Sewel Convention[3], a principle has been adopted whereby the UK Parliament will not normally legislate on a devolved matter without the agreement of the Scottish Parliament (Scottish Government, 2009b & Scotland Office, 2009b). When for example it is considered sensible and appropriate to put in place a single UK-wide regime, a 'Sewel motion' is passed by the Scottish Parliament to provide Westminster the authority to legislate in devolved areas.

Though the UK Parliament has generally "adhered to a self-denying ordinance on devolved matters", there is nothing, for example, in the devolution legislation to eliminate the Scottish Parliament from discussing reserved issues (Winetrobe, 2007, p. 218). Debating reserved matters in Holyrood provides a first indication that whatever the clarity of a political system in defining the policy domains of the various levels and/or types of governments and the degree and areas of governmental sovereignty, policy areas will become blurred in practice.

McGarvey and Cairney (2008), in trying to list the policy areas reserved to the UK Institutions in Westminster and Whitehall and the areas devolved in the Scottish Parliament, admit that there exists a number of areas where "it is not possible to draw clear lines of demarcation between Scotland and the UK or Europe" (p. 2). Their examples of policies where the boundaries between the UK and the Scottish Institutions are blurred include fuel poverty, industrial policy and new nuclear plants, while they refer to the EU Environmental Directives as a typical example of a policy area blurred between Scotland and Europe. During the past few years, the framing of energy policy has seen such impressive shifts in the dimensions that the perception might be that energy has become an increasingly blurred area of policy between the UK and Scotland. This is particularly visible in the area of renewable energy policy. According to Grant Thoms, parliamentary officer of Scottish Renewables,[4]

> We think that Westminster never intended for a Scottish administration to take such a lead in renewable energy. They saw energy as belonging to the business. But they couldn't stop it.

4.1. 'Sense and Sensibility'

Scottish success, Cairney (2006) suggests, depends on political will, the degree of UK interest and the strength or visibility of the agenda surrounding a policy issue. In 2007, the Scottish National Party (SNP) was elected based on a manifesto committed to increased powers for the Scottish Parliament and ultimately independence and developing renewable energy (SNP, 2007). Although green rhetoric is often a vital part

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[3] So called after Lord Sewel, the minister responsible for ensuring the progress of the Scotland Bill through the House of Lords in 1998
[4] Trade body for the renewable energy industry in Scotland

of the political talk, the SNP's manifesto, in line with a series of actions, most notably the recent Climate Change (Scotland) Bill and the Scottish Government's Action Plan for Renewables (July 2009) and to a lesser extent the opening in August 2009 of the Scottish European Green Energy Centre, show that the Scottish Government is keen to secure Scotland's place as a leader in wind energy policy in the UK and abroad. Other important Scottish Government actions in the same direction include: the submission in June 2009 of an application for funding for a project under Intelligent Energy for Europe 2009, an EU programme, which will bring together various actors such as project developers (e.g. ScottishPower), regional and local governments, environmental agencies and Non Governmental Organisations (NGOs) in order to develop a 'how to' toolkit which can be used to facilitate deployment of renewable energy; the case within the EU for the creation of a North Sea Grid, which in November 2008 was included as a priority in the European Commission's energy security strategy; and participation in the European Grid Working Group (Scottish Government, 2009d). These activities support the bottom-up narrative that Cairney (2006) refers to and which suggests that day-to-day autonomy in Scotland is reinforced by Scottish Ministers trying to affect the policy processes and shift the boundaries of the devolution settlement.

A widespread finding in political science is that the identification of power in terms of capacity is limited without demonstration of the exercise of power (Hindess, 1995, in Cairney, 2006, p. 430). However, although "Scottish power is more subtle and apparent in less formal arrangements" (Cairney, 2006, p. 435), its capacity should not be exaggerated, as autonomy depends directly on support from the UK and Scottish intergovernmental relations (IGR) (Agranoff, 2004). Contact between legislatures is very rare. Instead, most contact happens between executives and a number of means have been devised for each authority to co-operate in the shared policy domains. The most common are the Joint Ministerial Committees (JMCs) set up to allow ministers and staff of the two executives to address the areas of overlap. The lack of meetings between JMCs however, according to Trench (2004), reflects UK disinterest in devolved institutions. IGR are structured and practised in a way that reflects the UK dominance rather than a consensus (Cairney, 2006). Similarly, the UK dominance extends to the issue of legislation as not only has a Sewel motion never been defeated, but there is also no certainty that such a defeat would stop Westminster from legislating, since Westminster does not need formal permission from Holyrood to legislate in devolved areas (Cairney, 2006). UK dominance in IGR and legislation procedures constitutes the core of the top-down narrative Cairney (2006) suggests with regards to the policy development. The top-down approach indicates that UK interest in a policy area is a critical element of the Scottish success.

A third critical factor Cairney (2006) argues for Scotland to win a battle in the policy process is the strength of the issue debated to be framed in a certain way that is dealt within a particular institutional venue Scotland controls. Energy from renewable sources is an ideal example of a matter capable to be framed in several ways: deployment of wind energy is a business issue; yet it is also a climate change issue since wind power is almost zero carbon hence it helps a government to meet its greenhouse emissions targets. Because wind turbines have an impact on the landscape, they might also have an economic impact on tourism. Wind is an inexhaustible energy source and nature provides it for free, so it enhances energy independence and security.

These are only some of the dimensions attributed to the issue, and these themselves may generate further frames of reference. Climate change for instance is, according to doctors, the biggest threat to global health of the 21st century (Guardian, May 13th 2009). If wind power is linked to climate change, it is also therefore linked to public health.

   It is unclear which factor contributes the most to success. Exaggerating the Scottish influence or the UK dominance and implying solely a bottom-up or a top-down narrative respectively would be equally wrong. Sewel motions for instance, though none have ever been defeated and defeat would not necessarily stop the UK Parliament from legislating, are a political mechanism, and the implications of a potential defeat would be more significant than the constitutional arrangements suggest (Clerking and Reporting Directorate, 2002, in Cairney, 2006). It is difficult to assess the power of the centre in relation to the periphery, Cairney (2006) argues, given the tendency of the two executives to work informally and the lack of formal dispute resolution that produces 'winners and losers'. What seems to be the case, compounded by the evidence from multi-level governance in political science literature (see Baumgartner and Jones, 1993 & 2002), is that actors engage in a series of bargaining negotiations, where they use their sense of power capacity and their sense of issue framing to judge the 'sensibilities' and the limits of the others in an attempt to shift policy-making towards the directions of their preference.

4.2. The Interest Groups' Visible Hand

   There is a fourth factor, if not valid as a general rule then surely valid in the case of deployment of wind energy in Scotland, that is crucial if Scottish Government is to successfully exploit blurred policy boundaries and expand the constraints within which Scottish autonomy operates. This is collaboration and close working with interest groups. In fact, close ties with interest groups is very much in line with the notion of 'new politics' (see Mitchell, 2000), meant to depict the new improved pluralist process of policy-making in the post-devolution era. Post-devolution experience suggests generally good relations between interest groups and Scottish institutions, with the consultation process being more open and inclusive to a wider range of groups than is practised at the UK Government level (McGarvey & Cairney, 2008).

   Close and imaginative work with interest groups is vital because interdependent relationships between the government and policy actors in neo-liberal regimes, like in the UK, are the norm in politics. The notion of governance in such regimes has been critically stretched from the narrow view of a government being the main domain of social order to a broader process, often termed 'new governance', incorporating a great variety of actors (Bevir, 2009). Therefore, to pursue its goals in wind energy successfully, the Scottish Government should built coalitions with interest groups. First off groups will contribute to the task by adding their efforts to reframing the issue. This is the case particularly for some environmental groups, such as Friends of the Earth (FoE) Scotland, which mainly target policies for climate change and consider wind energy to be a necessary tool for achieving climate change targets. Such groups may also benefit from framing the wind energy issue as an environmental matter and perhaps may claim too that more powers over wind energy should be devolved to

Scotland.[5] Moreover, some groups, for example the World Wide Fund for Nature (WWF) Scotland, are devolved arms of UK organizations, and interviews with members show that although they enjoy a relative degree of freedom in designing their own policies with regards to devolved areas of policy in Scotland, they also work complimentary to and collectively with their UK counterparts (see Appendix). Thus, these groups may offer Scottish institutions additional leverage to push UK institutions. In exchange the Scottish Government, perhaps, could offer them a favourable response in another debate. This sort of collaboration needs to demonstrate imagination, smartness and accountability.

If a significant number of groups (or even better a significant number of influential groups) express sympathy for a Scottish claim, this automatically increases legitimacy of the Scottish interests. This is a second reason Scottish institutions should seek to work closely with interest groups. The Scottish Government is not portrayed then as a mere advocate of a continuous increasing autonomy but as the primary advocate of a highly legitimate purpose. Wind energy in particular is an issue that if adequately presented can enjoy a high value of legitimacy due to it being a low carbon energy technology.

Finally, even with the most promising policy at hand, the Scottish Government will need the help and co-operation of interest groups to implement it. Many groups, from large business actors to smaller voluntary organisations, work closely with local communities.

> We think we have a stronger voice by having links with what is happening
> on the ground and what is people's reality of actually trying to do things
> which are talked about at the top,

said Helen McDade, Head of Policy at the John Muir Trust (JMT), a pressure group which fights for the protection of Scottish wild places, confirming the observation that the group tries to shape opinions and attitudes of local communities so they can pressure top institutions on behalf of the trust. Although this is an indicator of a campaigning method, it also shows that groups may play an important role in helping top institutions to communicate and implement policies at the bottom. Thus, organised groups are a significant factor of Scottish success.

4.2.1 'Environmental Nerds Versus Tree-Huggers'

The Economist refers to the dispute over the approval by the Government of California of a new power line, as being "between pragmatism and idealism" (February 14th 2009, p. 57). While the state's authorities are said to believe "energy projects should be judged on whether they improve on current practice", some environmental groups, by contrast, "prefer to measure them against an environmental ideal" (February 14th 2009, p. 57). This is, the Economist adds, due to the different ways environmental groups perceive the climate change threat: on one side are the 'environmental nerds', the magazine suggests, those who fret about measurable changes in carbon emissions; while the other side is made up of 'tree-huggers' who worry more about harm to natural habitats, whether this is caused by global warming or anything else.

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[5] In fact, many Scottish interest groups openly supported devolution

The case in Scotland of the proposal for the upgrade of a power line between Beauly and Denny[6] is no different from the California example, with public opinion on the upgrade also polarised and the environmental lobby split. The line will create the capacity to transmit around six gigawatts of power generated from renewable energy sources in the Highlands and Islands to consumers in the south and will be vital in helping Scotland achieve its climate change targets. Those who object, to the proposal, for example the JMT, the National Trust for Scotland and the Ramblers Association, do so on aesthetic grounds and because it could significantly harm local habitats on its 220km long route; while those who are broadly supportive of the scheme, such as FoE Scotland and the WWF Scotland, do so on the ground that the line will release Scotland's renewable energy potential (Sunday Herald, October 25th 2009).

However, a more profound difference can be seen with regards to the diametrically opposed positions, or ideology, environmentalists often adopt. For many Greens there must be a massive shift to renewable energy to replace reliance on fossil fuels, the use of which causes environmental damage, including climate change (Leach, 2009). Thus, there are a high number of groups who are broadly supportive of wind energy projects. However there also exist groups who campaign against building wind turbines in Scotland and promote energy efficiency and energy conservation measures as the way forward instead. These groups tend to focus on the demand side of the energy equation, arguing sustainability should not be met by increased production, rather by reduced consumption (Dobson, 2007).

A number of interviews with Scottish environmental pressure groups support this idea. In general, the actors' responses reveal that policy-making inclines towards a combination of the group's ideology and objective scientific data. Thorough examination of the actors responses and the wealth of data provided on the groups' web pages, show however that it may not be so clear cut, with some groups (WWF Scotland, RSPB Scotland) seeming more inclined, if marginally, towards a scientific approach of policy-making; others (SWT, JMT) towards ideological factors; while for others still (FoE Scotland, Greenpeace UK) it is not possible to draw conclusions. Unsurprisingly, if the distinction between types of groups outlined above is correct, the two groups that appear to base their policies mostly on ideological factors believe that substantial reduction in energy demand and consumption must be the first priority of the Scottish Government in energy policy (SWT, 2007; JMT, 2009a), while JMT has objected to a high number of wind farm proposals and leads the fight against upgrade of the Beauly-Denny transmission line (see JMT, 2009b & 2009c). It might be expected that environmental science, with its clear position over the dire state of the global climate, might unite environmental groups under a common goal: in reality though it appears that not all groups stand for the same purpose and that groups focus on different aspects of science, (e.g. biodiversity, ecology, climate change and so on).

Obviously, there are limits to this struggle. These are well illustrated by Stuart Brooks, Head of Conservation at the Scottish Wildlife Trust (SWT), when he says:

> We are not that flexible [on the places the SWT thinks onshore wind farms
> should avoid] if there are alternative sites, which there are in Scotland. If it

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[6] The power line runs between Beauly, west of Inverness, to Denny, west of Falkirk. See The Sunday Herald, October 25th, 2009 for different opinions of the environmental groups over the upgrade of the line.

is important [a proposed site], we should be protecting it for the reason it was protected in the first place. The way to look at it is we live in a democracy. So, to come to a difficult position you need to take all the views on board… It's not our role to do that. Our role is to put forward the argument for wildlife. It's up to others to balance that view against the economy or other societal views. That's how the democratic process works.

4.2.2. Plurality of Actors in a 'Village Community'

Democratic processes are crucial especially if one considers the wealth and range of backgrounds of Scottish policy actors with an interest either directly in wind energy policy or more generally in the issue of climate change.

Thus, there are a number of different types of groups: 1) those aiming to tackle the climate change problem and reduce greenhouse gas emissions into the atmosphere (e.g. FoE Scotland; Stop Climate Chaos Scotland; WWF Scotland); 2) those working to secure a healthy environment for wildlife (e.g. The Royal Society for the Protection of Birds Scotland (RSPB Scotland); SWT); 3) those working to preserve forests and land (e.g. the Forestry Commission Scotland; JMT; The Scottish Wild Land Group); 4) those whose main concern is the protection of landscapes and scenery (e.g. the National Trust for Scotland; The Association for the Protection of Rural Scotland; The Ramblers Association); 5) those concerned with the impact of climate change on developing nations, e.g. in terms of drought and hunger (Christian Aid Scotland; Oxfam Scotland); and 6) industrial and economy players directly involved with wind power developments who aim to secure the sector's steady growth in coming decades (e.g. ScottishPower (SP); Scottish and Southern Energy Limited (SSE)).

The boundaries of these categories are to some extent flexible, with several groups being able to fit in various categories simultaneously. Scottish Natural Heritage (SNH) for instance has interests in wildlife, wildlands and landscapes.

Interestingly, the interviews conducted for this study suggest that post-devolution there is a somewhat 'close-knit' community of players. Brendan Turvey, Policy and Advice Officer for onshore wind developments at SNH, says

> One of the benefits of devolution in Scotland is that the key organisations
> and decision-makers get to know each other because it's a smaller centre.
> Whereas if you look at the whole of the UK there are more organisations,
> more people involved.

For this reason, Keating (2005) describes Scotland as being a 'village community'. Communication lines are short, at least in the central belt, Keating (2005) argues, and lobbyists and civil servants might have a great deal of casual face-to-face contact. "[Exchange of opinions] is easier and much quicker and you can develop a personal relationship and understanding with the other people and other organisations" Turvey adds. Keating (2005) says this while at its best this "can lead to common purpose and action for social advance", at its worst "it stifles change and excludes outsiders" (2005, p. 94). The fact is that devolution, Keating (2005) argues, has gradually reopened old networks and encouraged a different way of thinking of power; but this process, he adds, is not a fast one.

4.2.3 Venue Choices, Partnerships & the Case of Policy Areas which are Devolved but Europeanised

There is no doubt that the new way of thinking of power is dictated from the fact that policy-making is dispersed between three different centres: London, Edinburgh and Brussels. Thus groups must judge the extent to which potential policies endanger their interests, what is the best policy venue for them to target, the likelihood of success in this venue, the best use of their staff's time, and the sufficiency of the evidence they possess to support their case and the expenses involved.

Often, groups will also seek partnerships with other groups either from the same country or abroad to pursue a common goal.

> What we try and do is find common ground, and we try and identify where there are alliances and where we can present a collective voice. And so in that sense we are looking for shared priorities because where our voice is multiplied, it is always more effective,

says Dr. Sam Gardner, Climate Change Policy Officer, WWF Scotland. Scottish groups which are branches of UK organisations may find it easier to forge alliances with other policy actors because they are well established. However smaller independent groups also have the chance of collaboration, particularly through Scottish Environment Link, a forum for Scotland's voluntary environment organisations, established to provide a network that facilitates debate and co-operation between its member organisations, and acts at local, national and international levels, so offering its members the opportunity to build alliances and partnerships at various levels (Scottish Environment Link, 2009). Industrial actors can participate in the Scottish Renewables Forum, a trade association for renewable energy technologies, which promotes member interests in Scotland and which will often create alliances between trade associations in the UK (e.g. BWEA) to promote the industry interests further afield (Scottish Renewables, 2009).

With regards to target venues, the interviews showed different approaches are adopted. Stuart Brooks from SWT, says:

> We are not really proactive around energy debates. We tend to be reactive around individual planning cases…And because the [Scottish] Government hasn't produced a spatial plan, they have left it open. So it is up to the local authorities to determine what they mean in their local and structure plans, and it's up to us generally to defend the hundreds of applications that come in. Some of them we support and some of them we would object to.

George Baxter, Public Affairs Manager at SSE said "[we use] all relevant UK and Scottish Agencies. It is a Great Britain market, so a lot is UK focussed". Corinne Evans, Head of Projects and Campaigns at FoE Scotland said:

> Often we are asked to have comments in the media or help with a local campaign, which is outwith our main areas of work. Therefore, we do some reactive work. However, if a decision has to be made, it will be about where we focus our limited capacity and it will certainly be on the proactive, strategic terms.

At surface level, this suggests that certain groups use reactive tactics (SWT) while others are more proactive (SSE, FoE Scotland) when it comes to wind energy debates. One explanation for this may be that groups' resources are an important factor when

choosing policy venues. More however can be derived from these two different approaches. One group prefers to target not the Scottish Government but local authorities, because it believes that the Scottish planning system does not provide the level of detail that requires them to lobby at a national level. To an extent this is understandable. Under the Electricity Act 1989, Scottish Ministers only need to issue consent for onshore wind farms over 50MW. For projects below 50MW it is the local authorities who mainly give consent: hence SWT's reactive approach. The case for offshore wind farms is different, with any project needing permission from the Crown Estate, as landowner of the British Seabed, and then statutory consent from the Scottish Ministers (Crown Estate, 2009). This gives an incomplete picture of the wind energy matter however. Deployment of wind energy does not only depend on the planning system. It also needs an electricity grid capable of accommodating and transmitting the generated power, and financial incentives to support developers. For this reason SSE, FoE Scotland and other policy actors need to lobby, alone or via a partnership, all relevant UK venues (the Scottish Government, the UK Government, Ofgem and others). Scottish institutions have strong powers over the planning policies (a devolved area) and the electricity grid (blurred, since Ofgem regulates the grid but Scottish authorities need to approve the planning). However, Scotland has limited powers over the economy (a reserved area) and the financial incentives currently in place (the Renewables Obligations Order Scotland is devolved in Scottish authorities, hence the Scottish Government can set its own banding for renewable technologies; however its day to day functions are administered by Ofgem). In addition to this, although the Scottish Executive is responsible for the Renewables Obligations Order Scotland, the price of the certificates depends on the UK market, and furthermore Scottish Renewables and BWEA have repeatedly warned authorities in Scotland and the UK that Scottish/UK schemes should not vary significantly as this may upset the market (see Scottish Renewables, 2008).

Finally, an important element of the strategic movements of all policy actors (including the Scottish Government) targeting Scottish institutions over devolved areas of policy, is that overall, the EU dimension of devolved policies is considered to be a non-devolved matter and the final say as well as formal communication with the European institutions is reserved by London (Smith, 2008). As such, "the scope for territorial factors to influence Europeanization in Scotland is, in many ways, much as it was before devolution" (Smith, 2008, p. 78). This explains why Peter Singleton, Emerging Issues Unit Manager at the Scottish Environmental Protection Agency (SEPA), a governmental agency that regulates and monitors emissions of certain activities in Scotland, says:

> [We don't have absolute control of the EU trading scheme because] the UK is the member of the EU. So, it is the UK Government that reports back to Europe. We may decide on the way we implement registration. Devolution didn't change our [organisational] duties very much. Pre-devolution we reported to the Scottish Office and post-devolution we report to the Scottish Executive and now they are the Scottish Government. In many ways devolution changed very little.

Conclusions

The structural break in energy policy that took place at the beginning of this century and its consequent shift towards a new international energy order has pushed energy to the top of the world's political agenda. The UK is no exception to the rule. It is now called on to face the new challenges of energy security and climate change. Renewable energy offers solutions to the problem. However, confidence in laissez-faire liberalism to support the renewable energy industry in the new era is shaken especially after the financial crisis that started in 2008 hit the energy industry with a shortage of bank finance, the plunging value of pound and mounting equipments costs that caused many renewable energy projects to stall. Mitchell (2008) says that:

> Renewable energy policy in the UK is rather like a chimera and has never been taken seriously. British Governments, she argues, have always been very supportive of renewable energy in public but at no point a Government looked around seriously for a policy, which would deliver that deployment. (p.135)

At the same time, wind energy already plays a dominant role in some areas of the world and has the potential to increase its share further. Wind energy technology has reached a very reliable and sophisticated level and the growing wind energy market will lead to further improvements, such as larger machines or new system applications, for instance the "super" and "smart" grids. These improvements will lead to further cost reductions enabling in the medium term the wind energy generation to compete powerfully with conventional fossil fuel power generation.

Technological and economic issues spill over to political, social and environmental realms. The UK has one of the greatest wind resources in the world. It is therefore in a strong position to provide safe answers to energy security uncertainties and to the environmental pollution problem too.

Scotland in particular, pushing towards substantial wind energy developments on its land and shores, and given that it has certain advantages over England and Wales with regards to wind energy generation, has the opportunity to transform itself into a great energy player in the UK and therefore increase its political power. To do so, Scottish leaders need to keep up to date with the latest technical successes and economic improvements (which will dictate to them the present and future ways of action), and to develop a pragmatic view of what is politically possible, or which policies would best deal with wind energy in Scotland.

Developing a Scottish wind energy policy is not an easy task given that Scottish do not enjoy full power over their own affairs. Energy policy in particular, including the renewables sector, is a matter reserved to the UK Government. However this does not mean that Scotland is totally powerless. Instead, this paper introduces the idea that Scottish institutions may be able to acquire more power over wind energy policy if they shift successfully the issue of wind energy policy into policy areas devolved to the Scottish Parliament, e.g. the environment. To a certain extent, this is already happening. The Climate Change (Scotland) Act for instance indicates such a direction. Furthermore, the timing to do so is better than ever given the international and European pressure to reduce greenhouse gas emissions, and an electricity-generation crunch looming over the decade as many of Britain's old nuclear and dirty coal plants

are expected to close. The economic downturn does not help, however in the wake of the global financial crisis there has been dynamic debate over the need to enhance economy with green investments and base it on clean energy sources (see Economist, November 8th 2008 & October 17th 2009).

In order to acquire more power over the wind energy issue, this paper supports the idea that the Scottish Government should work closely with Scottish interest groups: firstly in designing legitimate policies which encourage investments north of the border; secondly in sharing efforts to shift the energy issue into devolved policy areas; and thirdly in pushing UK and EU institutions towards Scottish interests. Such relations between the Scottish Government and interest groups presents its own challenges.[7] Not all groups agree on wind power deployment, especially with regards to onshore developments (which are at the moment economically more attractive), and not all the groups that lobby UK or EU institutions may support the Scottish Government's plans. Interest group literature in political science shows that strict policy communities no longer survive easily in liberal political systems like the UK's. It is in the Scottish Government's hands to work for and achieve strong alliances with policy groups which will boost and offer further legitimacy to its claims, and create a fruitful Scottish environment for developers to invest in, thus making it possible for Scotland to increase gradually its power over the wind energy issue in a way that serves its own priorities and targets.

Acknowledgements

References

Interviews

Professor William E. Leithead, Interviewed on October 3rd 2008, at the University of Strathclyde, Glasgow

Grant Thoms, Parliamentary Officer of Scottish Renewables, Interviewed on November 27th 2008, at the Scottish Renewables, Glasgow

Corinne Evans, Head of Projects and Campaigns at Friends of the Earth Scotland, Interviewed by phone on November 27th 2008

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[7] Though in comparison with interest group scenes in London or Brussels for example, the Scottish scene is much less chaotic

Brendan Turvey, Policy and Advice Officer for Onshore Wind Developments at the Scottish National Heritage, Interviewed by phone on November 28th 2008

Stuart Brooks, Head of Conservation at the Scottish Wildlife Trust, Interviewed by phone on December 1st 2008

Dr. Sam Gardner, Climate Change Policy Officer at the World Wide Fund for Nature Scotland, Interviewed by phone on December 4th 2008

Peter Singleton, Emerging Issues Unit Manager at the Scottish Environmental Protection Agency, Interviewed by phone on December 4th 2008

Helen McDade, Head of Policy at the John Muir Trust, Interviewed by phone on December 8th 2008

George Baxter, Public Affairs Manager at Scottish-Southern Energy Ltd, Interviewed by e-mail on December 8th 2008

Bibliography

Aalto, P. & Westphal K. (2008) *Introduction* in Aalto, P. (eds) (2008) *The EU-Russian Energy Dialogue: Europe's Future Energy Security* (Ashgate)

Agranoff, R. (2004) *Autonomy, Devolution and Intergovernmental Relations*, Regional and Federal Studies 14 (1) pp. 26–65

Association of Electricity Producers, *FAQ about Electricity: Who are the National Grid?* Available at: http://www.aepuk.com/need_info.php Accessed: 03 December 2008

Baumgartner, F. R. & Jones, B. D. (eds) (2002) *Policy Dynamics* (The University of Chicago Press)

Baumgartner, F. R. & Jones, B. D. (1993) *Agendas and Instability in American Politics* (The University of Chicago Press)

Bentley, A. F. (1967) *The Process of Government: A Study of Social Pressures* (Harvard University Press) (first published 1908)

Bevir, M. (2009) *Key Concepts in Governance* (Sage)

Cairney, P. (2007) *Venue Shift Following Devolution: When Reserved Meets Devolved in Scotland*, Regional and Federal Studies 16 (4) pp. 429-445

Crown Estate, The, (2009) Offshore Wind Energy: Statutory Consents Available at: http://www.thecrownestate.co.uk/statutory_consents Accessed 26 October 2009

Dearlove, J. & Saunders P. (2000) *Introduction to British Politics* (Polity Press)

Department for Environment, Food and Rural Affairs (DEFRA) (2008a) *Emissions Trading Schemes* Available at: http://www.defra.gov.uk/environment/climatechange/trading/index.htm Accessed: 03 December 2008

Department for Environment, Food and Rural Affairs (DEFRA) (2008d) *European Union Emissions Trading Scheme* Available at: http://www.defra.gov.uk/environment/climatechange/trading/eu/index.htm Accessed: 03 December 2008

Department of Energy and Climate Change (DECC) (2009a) *The UK Low Carbon Transition Plan: National Strategy for Climate and Energy* Available at: http://www.decc.gov.uk/en/content/cms/publications/lc_trans_plan/lc_trans_plan.aspx Accessed: 15 October 2009

Department of Energy and Climate Change (DECC) (2009b) *Climate Change Act 2008* Available at:
http://www.decc.gov.uk/en/content/cms/legislation/cc_act_08/cc_act_08.aspx
Accessed: 15 October 2009

Dobson, A. (2007) *Green Political Thought* (Routledge)

Dudley, G. & Richardson, J. (1998) *Arenas without Rules and the Policy Change process: Outsider Groups and British Roads Policy*, Political Studies 46 (4) pp. 727-747

Economist, The, June 21st 2008, *A Special Report on the Future of Energy*
Economist, The, November 8th 2008, *Climate Change: Green, Easy and Wrong*
Economist, The, November 22nd 2008, *Environmental Politics: A Rod For Our Backs* Economist, The, February 14th 2009, *Environmental Politics: Tree-huggers V Nerds* Economist, The, April 4th 2009, *Renewable Energy: Greenstanding*
Economist, The, July 18th 2009, *Energy and Climate Change: Show Us The Money*
Economist, The, October 10th 2009, *Briefing: Smart Grids*

Economist, The, October 17th 2009, *Energy and Climate Change: Questioning the Invisible Hand*

Environmental Change Institute, University of Oxford, (2005) *Wind Power and the UK Wind Resource*
Available at: http://www.eci.ox.ac.uk/publications/downloads/sinden05-dtiwindreport.pdf

European Wind Energy Association (EWEA), (2007a) *Debunking The Myths: "As an energy source, wind power can't make any difference"*
Available at:
http://www.ewea.org/fileadmin/ewea_documents/documents/windmyths/windmyths3-as_an_energy_source.pdf

European Wind Energy Association (EWEA), (2007e) *Delivering Offshore Wind Power in Europe*
Available at:
http://www.ewea.org/fileadmin/ewea_documents/images/publications/offshore_report/ewea-offshore_report.pdf

European Wind Energy Association (EWEA), (2005) *Electrical Grids and Wind Power: The Present Situation in Europe*
Available at:
http://www.ewea.org/fileadmin/ewea_documents/images/publications/grid/AAA-_countries_study_4_Final.pdf

European Wind Energy Association (EWEA), (2008a) *Strategic Research Agenda*
Available at:
http://www.ewea.org/fileadmin/ewea_documents/documents/publications/reports/SRA_Final_Version_July_2008.pdf

Grant, W. (1989) *Pressure Groups, Politics and Democracy in Britain* (Philip Allan)
Greenwood, J. (2003) *Interest Representation in the European Union* (Palgrave Macmillan)

Guardian, The, March 21st 2009, *Warning over Renewables as Economic Crisis Leaves Funding Gap*

Guardian, The, May 13th 2009, *Climate Change Biggest Threat to Health, Doctors Say*

Guardian, The, July 16th 2009, *Miliband Still Committed To Wind Energy – But Pressure From Nuclear Sector Will Not Go Away*

Heywood, A. (2000) *Key Concepts in Politics* (Palgrave Macmillan)

John Muir Trust (JMT) (2009a), *Energy Conservation, not just Generation*, Available at: http://www.jmt.org/policy-energy-conservation.asp Accessed: 10 October 2009

John Muir Trust (JMT) (2009b) *JMT Responses to Planning, Electricity or Transmission Applications*, Available at: http://www.jmt.org/responses-planning-electricity.asp Accessed: 22 October 2009

John Muir Trust (JMT) (2009c), *The proposed Beauly Denny 400kV transmission line*, Available at: http://www.jmt.org/beauly-denny-inquiry.asp Accessed: 18 October 2009

Jones, B. & Kavanagh, D. (2003) *British Politics Today* (Manchester University Press)

Keating, M. (2005) *The Government of Scotland: Public Policy Making after Devolution* (Edinburgh University Press)

Kingdom, J. (2003) Government and Politics in Britain (Polity Press)

Leach, R. (2009) *Political Ideology in Britain* (Palgrave Macmillan)

Loomis, B. A. & Cigler, A. J. (2007) *The Changing Nature of Interest Group Politics* in Loomis, B. A. & Cigler, A. J. (eds) (2007) *Interest Group Politics* (CQ Press)

Lynch, P. (2001) *Scottish Government and Politics* (Edinburgh University Press)

McGarvey, N & Cairney, P. (2008) *Scottish Politics: An Introduction* (Palgrave Macmillan)

Mazey, S. & Richardson, J. (eds) (1993) *Lobbying in the European Community* (Oxford University Press)

Mitchell, C. (2008) *The Political Economy of Sustainable Energy* (Palgrave Macmillan)

Mitchell, J. (2000) *New Parliament, New Politics*, Parliamentary Affairs 53(3) pp. 605-21

Pralle, S. B. (2003) Venue Shopping, Political Strategy, and Policy Change: The Internationalization of Canadian Forest Advocacy, Journal of Public Policy 23 (3) pp. 233-260

Reid, A. (2004) *The Electricity Network in Scotland* (Briefing to the Scottish Parliament Information Centre) Available at: http://www.scottish.parliament.uk/business/research/briefings-04/sb04-07.pdf

RenewableUK (2013) *UK Wind Energy Database* Available at: http://www.renewableuk.com/en/renewable-energy/wind-energy/uk-wind-energy-database/index.cfm Accessed: 18 March 2013

Richardson, J. (2000) *Government, Interest Groups and Policy Change*, Political Studies 48 (5) pp. 1006-1025

Richardson, J. (1993) *Interest Group Behaviour in Britain: Continuity and Change* in Richardson, J. (eds) (1993) *Pressure Groups* (Oxford University Press)

Scotland Office (2009a) *Reserved and Devolved Matters* Available at: http://www.scotlandoffice.gov.uk/scotlandoffice/53.html Accessed: 20 October 2009

Scotland Office (2009b) *Government Memorandum on the Sewel Convention* Available at: http://www.scotlandoffice.gov.uk/scotlandoffice/10196.html Accessed: 20 October 2009

Scottish Environment Link (2009) *Scottish Environment Link is…* Available at: http://www.scotlink.org/About_LINK/LINK_is.php Accessed: 22 October 2009

Scottish Government, The (2009a) *Climate Change (Scotland) Act 2009* Available at: http://www.scotland.gov.uk/Topics/Environment/climatechange/scotlands-action/climatechangeact Accessed: 15 October 2009

Scottish Government, The (2009b) *UK Responsibilities* Available at: http://www.scotland.gov.uk/About/18060/11555 Accessed: 20 October 2009

Scottish Government, The (2009c) *Scottish Responsibilities* Available at: http://www.scotland.gov.uk/About/18060/11552 Accessed: 17 October 2009

Scottish Government, The (2009d) *Action on European Policy Available* at: http://www.scotland.gov.uk/Topics/Business-Industry/Energy/Action/leading/Energy-In-Europe/European-policy Accessed: 20 October 2009

Scottish National Party (2007) *Manifesto 2007* Available at: http://www.snp.org/node/13534 Accessed: 20 October 2009

Scottish Renewables (2008) Renewables Obligation Scotland Consultation Response Available at: http://www.scottishrenewables.com//MultimediaGallery/21b6a19d-efbc-4c05-82dd-e53f5a7951f4.pdf Accessed: 27 October 2009

Scottish Renewables (2009) *Membership Info, What We Do* Available at: http://www.scottishrenewables.com//MultimediaGallery/010ec0d7-1bd8-43b4-8b6e-c2851218397b.pdf Accessed on: 23 October 2009

Scottish Wildlife Trust (SWT) (2007), *Scottish Wildlife Trust Policy: Energy and Nature Conservation* Available at: http://www.swt.org.uk/docs/002_001_general_EnergyPolicy2007_1250595044.pdf Accessed: 10 October 2009

Smith, J. (2008) *Government in Scotland* in Bache, I. & Jordan, A. (eds) (2008) *The Europeanization of British Politics* (Palgrave Macmillan)

Sunday Herald, October 25th 2009, *Pylon Pressure: A Future on the Line*, and, *Revealed: Go-ahead for Power Line that Splits Scotland*

Trench, A. (2004) *Devolution: the Withering-away of the Joint Ministerial Committee*, Public Law, Number 3 (Autumn) pp.513–517

USA Department of Energy, Office of Electric Transmission and Distribution, (2003) *Grid 2030: A National Vision for Electricity's Second 100 Years* Available at: http://www.oe.energy.gov/DocumentsandMedia/Elec_Vision_2-9-4.pdf

Wilson, G. (1990) *Interest Groups* (Basil Blackwell)

Winetrobe, B. K. (2007) *Scottish Devolution: Developing Practice in Multi-Layer Governance* in Jowell, J. & Oliver, D. (eds) (2007) *The Changing Constitution* (Oxford University Press)