

BRIEFING ON WIND ENERGY PLANNING ISSUES
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This briefing note has been produced to accompany Geraint Ellis' presentation to the NI Assembly Environment Committee on 7th November 2013, as part of its "mini-enquiry" on a number of aspects of wind energy development in Northern Ireland. The paper offers only a short outline on the issues that will be discussed at the Committee and is intentionally brief to provide a summary of the key issues.

1. *Planning for renewable energy projects*

• *Defining aims and objectives;*

Renewable energy is being expanded for a number of sound reasons, such as addressing climate change and increasing energy security. Figs 1 and 2 in the Appendix indicate the very rapid increase in renewable generating capacity in Northern Ireland, indicating a ten-fold increase between 2003 and 2011. Figure 2 shows how this has come also most entirely from onshore wind development, offering a drastic change to the Northern Ireland landscape. Therefore, it would appear that the planning system has been successful in fulfilling the aims of PPS18 to "facilitate the siting of renewable energy generating facilities ... in order to achieve NI's renewable energy targets". Indeed, compared to policy in neighbouring jurisdictions, PPS18 is highly permissive and while it has encouraged rapid growth of renewables, it is worth considering how effective it has been in balancing this with other aspects of the public interest, such as encouraging local economic development, protecting long-term renewable assets or facilitating social acceptance of wind energy.

• *Integration with other policies;*

It has not always been clear how the NI renewable energy targets are coordinated with other government policies, such as those for planning, which needs to take into account a wide range of issues such as landscape protection, community development, tourism, etc. Indeed, it is unclear whether there has been an evaluation of the spatial implications of meeting renewable targets, or an assessment of what would be an acceptable level of "saturation" of the NI landscape. Furthermore, has there been any consideration of whether planning issues other than grid development could act as a limiting factor in expanding NI's renewable energy base? Was there ever a consideration of the planning implications of adjusting the financial support for different types of renewables? There is substantial potential for creating substantial synergies between different areas of policy (e.g. development on Forestry land) while more explicit links between government strategies can play an important role in helping to justify planning decisions.

• *Planning for other types of renewables;*

As noted in Fig. 2, NI has been very effective in stimulating wind energy development and it has used its powers over financing mechanisms to encourage certain types of renewables, such as single turbines and anaerobic digesters, so that the growth of these outstrips other parts of the UK. The other main types of renewable technologies that are likely to offer challenges to the planning system in the next 5-10 years will be increased expansion of large Anaerobic digesters, large scale solar plants and offshore renewables. While a new regulatory framework for marine areas is now emerging, the policy context for the other technologies is not immediately clear.

• *Performance of neighbouring jurisdictions;*

Figures 3-5 compares 2011 figures for renewable capacity in Northern Ireland compared to neighbouring jurisdictions, based on a recent study for the ESRC¹. This serves a number of purposes; it raises questions of how we evaluate success in planning and energy policy and it focusses on what makes a robust renewable energy policy. This study highlighted a number of factors that make Scotland the current leader in renewables in the UK, and highlighted that NI has a more liberal planning system than anywhere else in the UK. It also highlights the different approach taken in Wales for the strategic planning of wind energy (see Fig 6), which offers a number of interesting lessons for planning large scale wind developments.

¹ <http://www.cardiff.ac.uk/cplan/research/delivering-renewable-energy>

2. Dealing with noise, landscape and other impacts

- *The use and definition of setback distances;*
The most common planning instrument for mitigating the impacts of wind turbines on individual properties is the specification of set-back distances; i.e. the minimal distance that turbines will be permitted from the nearest property (most commonly an occupied house). There is no compulsory setback distance in the UK, but some guidance is provided based on a set distance (e.g. 500m), or as a function of turbine height. Internationally, there appears to be a lack of consensus on an appropriate setback distance, nor the main purpose for such controls. There have been a number of unsuccessful attempts in England and Ireland to establish distances up to 2km by private members bills. Stringent setback distances have been introduced in Victoria, Australia², which appear to have largely prevented further wind energy developments. Set back distances are a rather crude instrument for controlling the impacts of turbines and would face particular problems in NI for achieving renewable targets given previous policy on one off housing in the countryside.
- *Impact on land values;*
Many neighbours to proposed turbines are concerned about the impact on local land values. There does not appear to be any solid evidence on the actual impact on house prices, with studies reporting both negative and negligible impacts in different contexts and these may be specific to local housing markets. There does not appear to have been any studies conducted in an NI context. However, one must also consider that many types of development have a positive or negative impact on neighbouring land values, which are generally not compensated or taxed and it is unclear why wind energy developments should be made a special case in this respect.
- *Minimising visual intrusion;*
Visual intrusion and a sense of the changing character of places drives many concerns over wind turbines. This is an inevitable consequence of the deployment of wind energy and the planning system is the only arena in which such effects can be evaluated and balanced with other impacts. While wind farms have avoided AONB and other sensitive landscapes, there does not seem to be a strategic approach to minimising the overall zones of visual intrusion of turbines on the NI landscape. This contrasts to the approach followed in Wales (Fig 6); indeed the support given to small single turbines is likely to maximise the visual intrusion per MW generated.
- *Noise issues:*
Noise is a common source of complaint from those living near wind turbines and this can be a function of a range of factors, including turbine design and siting, atmospheric effects and individual sensitivity to noise. These factors also lead to difficulties in measuring turbine noise and identifying an “acceptable” noise limit. The most commonly quoted noise standard is ETSU-R-97, which specified 5dB(A) above background noise and absolute maximum of 35-40dB(A) for daytime and 43dB(A) for night time. While this could be controlled using set back distances, this does not easily take into account different model types, siting etc. An interesting initiative in Denmark has been to reduce the noise limits to 20dB(A) (from 40) in an attempt to place pressure on manufacturers to introduce quieter turbine models.

3. Community engagement and sharing the benefits of wind energy development

- *Participation and its links to ‘acceptance’;*
Communities often complain that they have not been adequately consulted about wind energy proposals in their local area and such factors often exacerbate levels of objection to planning applications. Studies have shown that there is a “good process effect” linked to openness and transparency. Practice does vary between developers, although NIRIG has adopted a protocol for community engagement in 2013. Wind energy proposals are not differentiated from other developments for the process of participation.
- *The role of intermediaries;*
A number of countries have attempted to increase trust and good practice in wind energy developments by encouraging or establishing intermediaries to be involved in the development process. These may become involved in negotiations between the community and the consenting authority (e.g. Community Energy Scotland),

²<http://www.theguardian.com/environment/southern-crossroads/2013/may/29/1>

between the developers and the community (e.g. developer funded community liaison officers), or provide good practice advice for all those involved, such as the Danish Wind Turbine Secretariat.

- *Community benefit schemes;*

Many wind energy developers offer benefits to those living in proximity to a proposed wind farm, although such initiatives cannot be formally taken into account when considering a planning application. Such schemes take a variety of forms and are at different levels of numeration – for example NIRIG announced its intention to offer a £1000 per MW in early 2013, while £5000 per MW is often called for in Scotland, where there is now an open register of the benefits offered by each scheme. Some County Councils in the Republic of Ireland are proposing to secure community benefits through planning gain³. Developer-led schemes come in a variety of forms, including payments into community funds, while RES have recently launched a Discounted Electricity Scheme⁴. Community benefits schemes face a number of problems of administration and boundary effects. Community benefits schemes do offer a range of positive outcomes for local communities, although the impact on acceptance is far from clear. There are questions why wind developers should be expected to provide benefits, while other forms of development are not.

- *Community energy and co-ownership;*

Increased community ownership of renewable schemes has been shown to be effective in enhancing local community benefits and maximizing the acceptance of wind energy schemes. There is a very low level of community involvement in energy in Northern Ireland and compared to other jurisdictions, there has been little government intervention in this area. In Denmark, where there have been historically high levels of acceptance, wind energy has traditionally been led by local cooperatives and in 2008 Denmark passed a new law requiring up to 20% ownership of any scheme to be offered to local communities.

4. Key issues and potential future developments

The Northern Ireland energy system will continue to evolve over the coming decades in response to technological change and a variety of economic and environmental challenges. The direction of change will be intrinsically linked to social issues, which could provide the ultimate limiting factor for some developments, such as onshore wind. The planning system will have to continue to anticipate and regulate such developments and for it to successfully do this, it is suggested that some key questions may be:

- How effective is planning for renewable linked to energy policy and other government strategies?
- Has PPS18 been effective in securing government goals for the planning of renewables? How has this policy been evaluated and monitored and what are the implications for the adoption of the Single Strategic Planning Policy Statement?
- How will the planning system respond to large scale AD and solar plants?
- What is the government's view on "repowering" of previously developed sites?
- Will local authorities need specific support when dealing with renewable proposals when they take on planning responsibilities in 2015?
- What actions would increase community trust in the planning process – would intermediaries improve the current situation and if so, how would they be funded?
- How best can community energy be encouraged through the planning system and is there a role for a co-ownership strategy?
- How can NI best learn from the experience of other countries in the planning of renewables?

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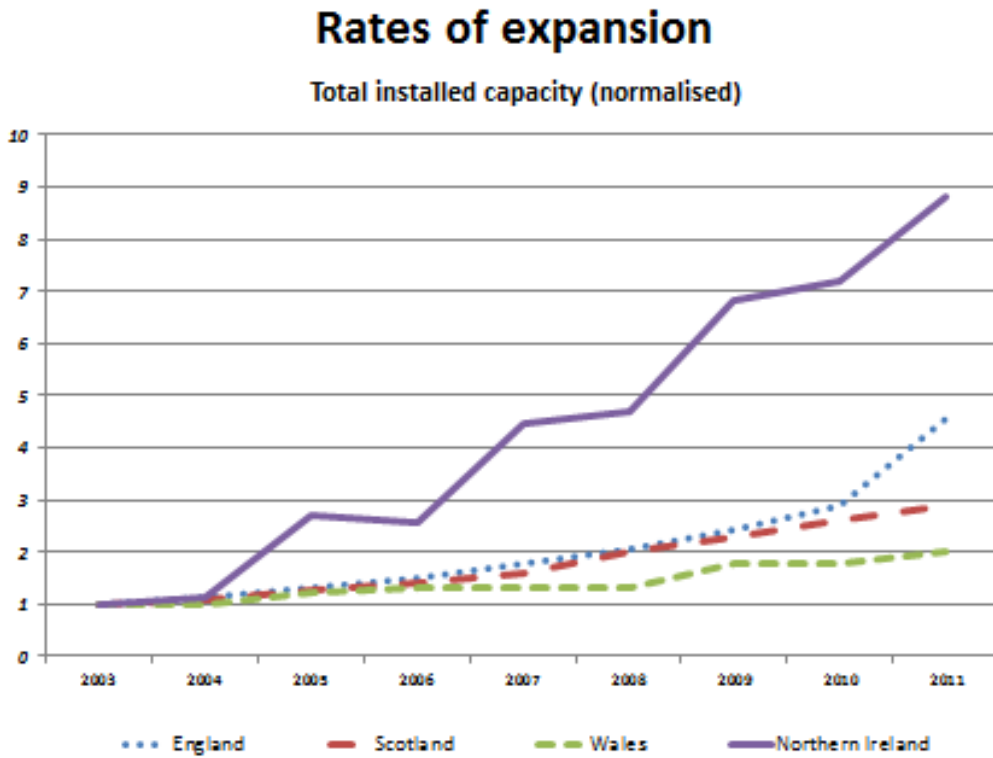
4th November 2013

³For example: <http://www.mayococo.ie/en/Planning/DevelopmentPlansLocalAreaPlansandStrategies/PolicyDocuments/>

⁴<http://www.res-leds.com/>

APPENDIX

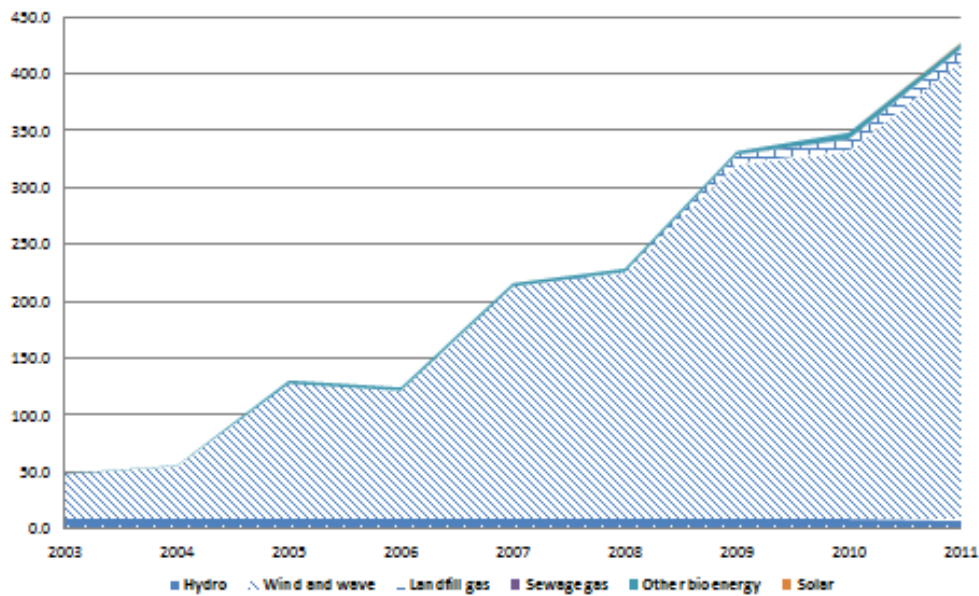
Figure 1



Source: DECC Energy Trends

Figure 2

Northern Ireland: Installed renewables 2003-2011



Source: RESTATS

Figure 3

Installed capacity of renewables in all administrations: 2011

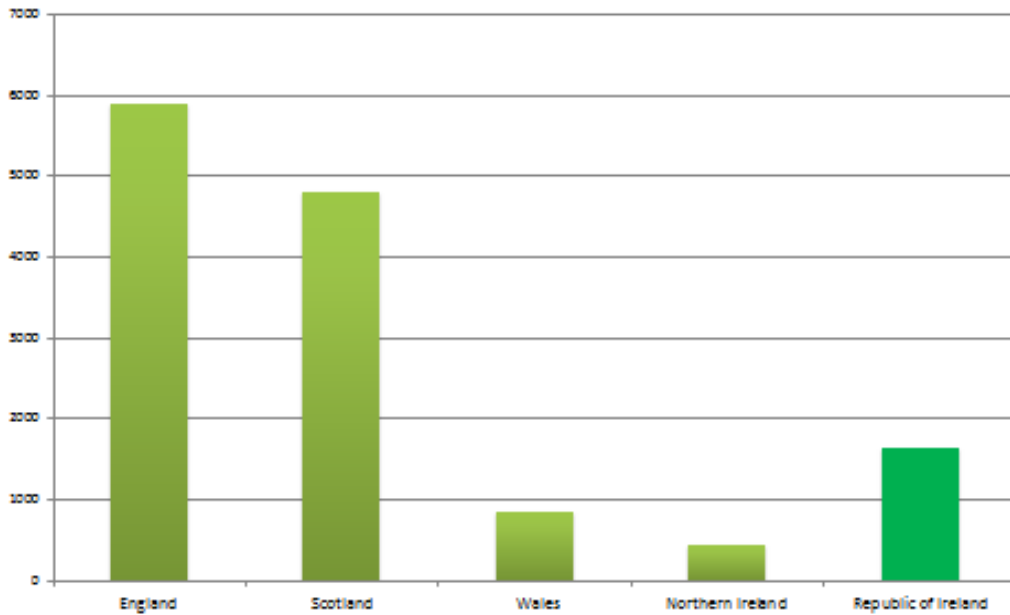


Figure 4

Renewable capacity per capita for all administrations: 2011

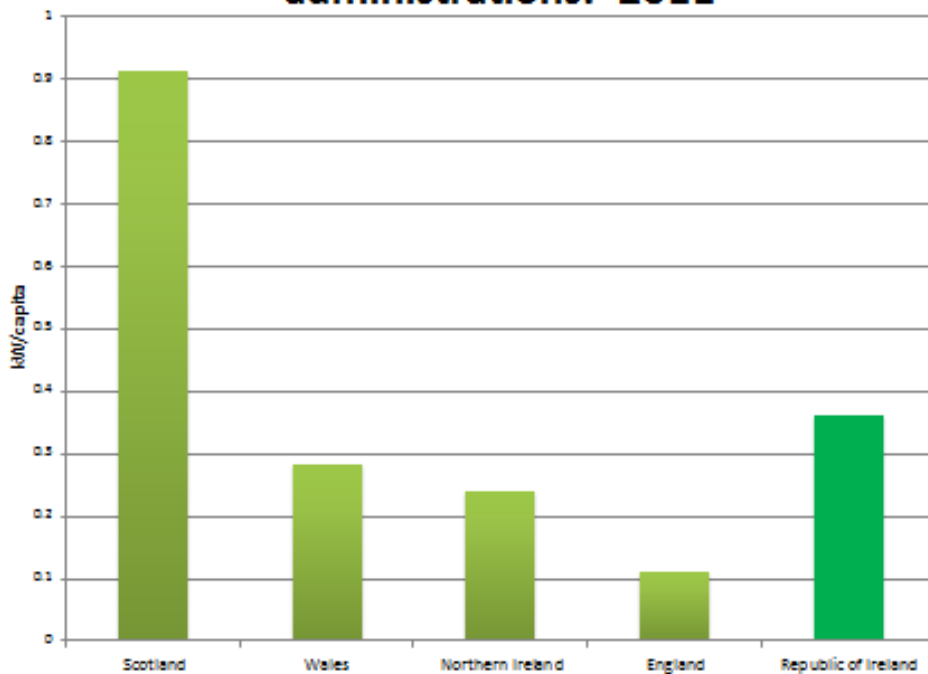


Figure 5

Renewable capacity KW per Km2 for all administrations: 2011

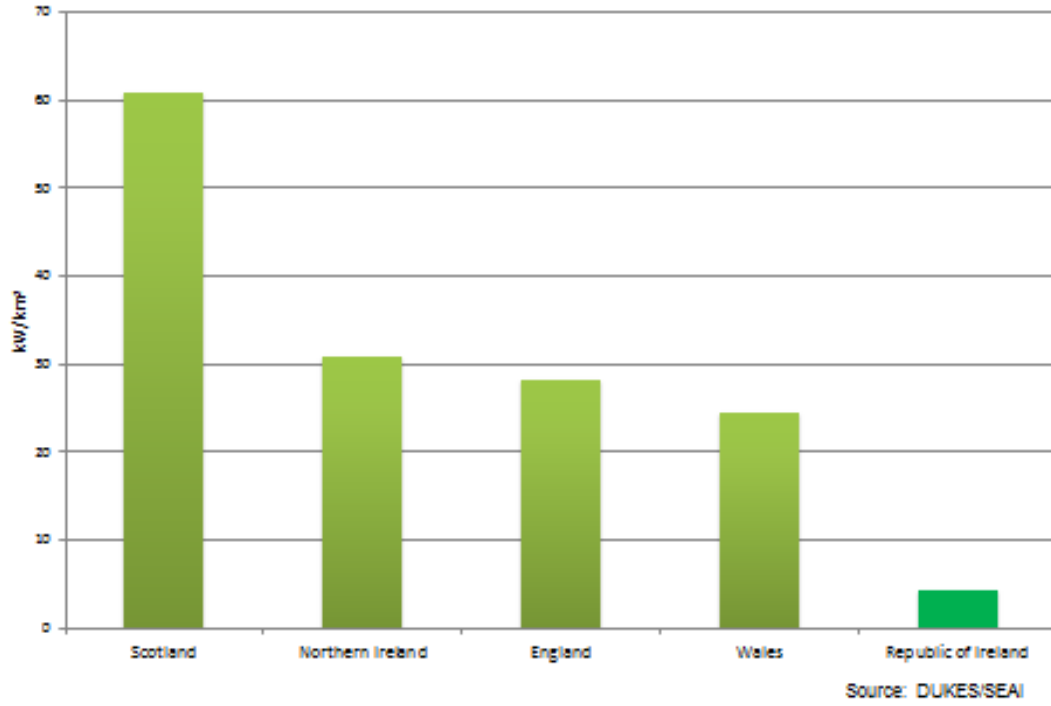


Figure 6

