

**From:** [Hepper, Fiona](#)  
**To:** [McCoy, Laura](#)  
**Subject:** FW: Delivering renewable energy - briefng for DS  
**Date:** 22 January 2013 14:07:33  
**Attachments:** [DS update on SEF at delivering renewable energy conf jan 13.DOC](#)  
[DREUD Executive Summary 18.01.13.pdf](#)

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[Briefing, speech and report](#)

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***The new website for the European Sustainable Competitiveness Programme for NI is now available - visit [www.eucompni.gov.uk](http://www.eucompni.gov.uk)***

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**From:** Clydesdale, Alison  
**Sent:** 22 January 2013 13:17  
**To:** Hepper, Fiona  
**Cc:** Dolaghan, Paul  
**Subject:** Delivering renewable energy - briefng for DS

Fiona

Attached briefing for DS - including his speaking notes LTT Q&A and pen pics. Have restricted the LTT to renewable issues as that is the focus of the conference.

Attached separately the slide pack and the report.

The speaking notes have been updated by all HOBs but as I added back in all the SEF areas it may be a bit long - at 120 words per minute they are around 30 mins - one option (which is what we provided to you at end Dec ) is to just offer an update on the sustainability criteria alone and not the other SEF aspects.....easily modified if you want to go down that route. I think it might be better to give him more and he can skip over some rather than leave it a bit light. If he overruns then there's less time for Q&A.

I am assuming that Janice will forward the slides when David is content.

Have offered a prebrief.

Alison

**Alison Clydesdale**

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**From:** Fiona Hepper  
Energy Division

**Date:** 22 January 2013

**To:** David Sterling

**Copy Distribution List Below**

**DELIVERING RENEWABLE ENERGY – NORTHERN IRELAND LEADING THE WAY CONFERENCE FRIDAY 25<sup>th</sup> JANUARY 2013 W5 BELFAST**

**Issue:** You have agreed to deliver an update on the SEF at the Delivering Renewable Energy – Northern Ireland leading the way ? conference.

**Timing and location:** 9 am 25<sup>th</sup> January W5 Belfast

**PfG implications:** None for this submission.

**Need for referral to the Executive:** No

**Presentational Issues:** There is likely to be press interest in the publication of the “Renewable Energy and Devolution report” which is being launched at the conference.

**Freedom of Information:** This submission is discloseable.

**PfG PSA implications** None

**Financial Implications:** None

**Statutory Equality Obligation:** Compliant; there are no Section 75 implications.

**Legislation Implications:** None

**Recommendation:** That you note the briefing, speaking notes and lines to take.

**Background**

You have agreed to participate in the “Delivering Renewable Energy – Northern Ireland leading the way?” conference at 9 am on 25<sup>th</sup> January at W5 Belfast. An outline programme is attached at **Annex A**. You are scheduled to provide an update on progress on the Strategic Energy Framework (SEF) and take Q&A as part of a

panel discussion. Draft speaking notes are attached at **Annex B**. A corresponding slide pack is attached separately. You will be accompanied by me and Alison Clydesdale and we are available for a pre-brief if necessary.

2. The conference will include the Northern Ireland launch of a research study funded by the UK's Economic and Social Research Council (ESRC) and undertaken by Queen's University Belfast, Cardiff University, Birmingham University and Robert Gordon University, Aberdeen. The study examined each of the UK's devolved administrations different governance arrangements and differing levels of competency for energy policy and the promotion of renewables. The report provides a framework for assessing the impact of different policy initiatives, institutional arrangements and political styles across the UK. The report focuses on how Northern Ireland has performed in relation to renewable energy policy compared to other UK administrations.

### **Renewable Energy and Devolution report**

3. The report presents the initial findings of a two year research project funded by ERSC to assess the effects of devolution within the UK on the delivery of renewable energy. Indeed I participated in an interview for QUB as part of this research. We have only received a draft initial findings summary report. From that it would appear that the main conclusions are :-
  - a. The performance of Northern Ireland in terms of the rate of increase in renewable capacity since 2003 looks quite dramatic compared to other regions of the UK. With Northern Ireland having achieved a twenty – fold increase in capacity between 2003-2011 (48 MW to 427 MW) even though we have the lowest installed capacity in the UK.
  - b. Scotland leads the way on a high level of elite coherence and consistency over energy development in terms of political leadership. The report concludes that the same level of political coherence around renewable energy cannot be found in other governmental arenas. The report states that NI lacks an institutional framework that can give a full integrated expression of the benefits if renewables and the lack of a clear champion in NI to drive the agenda may be limiting factor.
  - c. The report concludes that NI's decision to join Electricity Market Reform (EMR) while retaining the right to negotiate a different strike price does, in effect, lose much of our autonomy that we could have over our own market support initiatives or foster greater links on this issue with the Irish Republic. It should be noted that this perhaps demonstrates a lack of understanding on the part of the report writers that NI is bound to contribute to the UK member state targets and that a support mechanism paid for by consumers on the island of Ireland would be much more expensive than one that is spread across the much bigger UK consumer base. These points have been covered in your slides and speaking notes.
  - d. The report does conclude that NI is the most successful area of the UK in relation to the planning and consents approval rates for renewable projects. This has been attributed to the centralisation of planning with the DOE and the more liberal criteria based approach of PPS 18.

- e. The report recognises that the issues of grid development and connection difficulties for renewables exist across the UK.
  - f. In relation to offshore renewables the report concludes that Scotland has led the way in relation to providing additional funding for marine technologies but does recognise that both Scotland and NI have been successful in raising the profile of marine renewables in the EU.
4. The report does not conclude that devolution is necessarily the most important factor in shaping the development of renewable energy in the UK. It concludes instead that renewable energy is not a subject on which there is fundamental disagreement about policy direction between London, Cardiff, Edinburgh and Belfast. On the whole there does not appear to be much new in the report, however the many references to Scotland's successes in this field have the potential to generate some negative press coverage for Northern Ireland and may stimulate some debate at the Q&A session. Lines to take and Q& A have been provided at **Annex C and D** respectively. A copy of the initial findings summary report is also attached separately for reference.

### **Recommendation**

5. It is recommended that you note the following briefing prepared for your use at this event. Your slide pack and a copy of the initial report are attached separately.

**Annex A** - Programme.

**Annex B** - Draft speaking notes

**Annex C** - Renewable lines to take

**Annex D** - Q& A – offshore renewables and RHI

**Annex E** – Pen Pictures

**FIONA HEPPER**  
**Energy Division**  
**Ext 29215**

cc Alison Clydesdale  
Paul Dolaghan

## Programme

0900 Chairman's welcome & introduction:

**Dr Robin Curry**, Institute for a Sustainable World  
Queen's University, Belfast

*Renewable energy and the devolved administrations: Key findings*

**Richard Cowell**, Cardiff School of Planning and Geography  
Cardiff University

*Devolution and renewable energy in Northern Ireland: Are we leading the way?*

**Geraint Ellis**, School of Planning, Architecture and Civil Engineering  
Queen's University, Belfast

*Implementing the Strategic Energy Framework: Progress to date*

**David Sterling**, Permanent Secretary  
Department of Enterprise, Trade & Investment

*Assessing the impact of renewable energy policy in the Republic of Ireland*

**Dr Brian Motherway**, Chief Executive Officer  
Sustainable Energy Authority of Ireland

Questions & answers / Panel discussion

1100 Morning coffee / networking opportunity

1130 *The legal and planning framework for renewable energy in Northern Ireland*

**William Orbinson, QC**

*Planning for renewable energy in Wales*

**Rosemary Thomas**, Chief Planner  
Welsh Assembly Government

*Exploring the challenges faced by community renewable energy developers*

**Steven Watson**, Corporate Manager  
Community Energy Scotland

*Exploring the economic impact of renewable energy policy*

**Dr John Constable**, Director  
Renewable Energy Foundation

Questions & answers / Panel discussion

1300 Networking lunch

## SPEAKING NOTES

## SPEAKING NOTES FOR DAVID STERLING – 25.1.13

## SLIDE 1 – Delivering Renewable Energy

- Grateful for the invitation to speak at your conference today and particularly pleased to have this opportunity to update you, as requested, on progress in delivering on the key goals within our Strategic Energy Framework 2010.
- Before I touch on the progress to date I thought it may be helpful to recap briefly on the background/context against which the SEF is being taken forward.

## SLIDE 2 – Current Trends/Targets

- **Trends:** - It would be fair to say that in many regards the trends that we need to take into account in seeking to deliver the SEF's strategic objective of 'a secure, competitive, sustainable and affordable energy future for all Northern Ireland consumers' have not altered significantly since the document was published in September 2010.
- Environmental protection remains very much to the fore, coupled with ambitious carbon and renewables targets.
- Increasing costs – despite recent good news that electricity tariffs reduced by 14% from 1 October alongside no increases in gas tariffs, it is fair to say that over the medium to longer term both fuel and capital costs are likely to continue to rise.
- Security of supply remains a real concern with higher global volatility and a growing dependence on gas.
- Increased regulation with the EU pressing for integration of electricity markets and greater transparency.

- **Targets:** - SEF 2010 – 40% of electricity consumption from renewable sources and 10% renewable heat by 2020.
- Within the PfG 2011-15 there are interim targets towards meeting these goals of 20% of electricity consumption from renewable sources and 4% renewable heat by 2015.
- The current rolling monthly average figure for renewable electricity is around 14% and, while we don't yet have a substantive figure to hand, we are confident that, given the introduction of the Renewable Heat Premium Payment and the recent launch of the Renewable Heat Incentive, there is potential for significant progress to be made towards the renewable heat target.

### **SLIDE 3 – Wider Energy Context**

- And there are other factors of which we should not lose sight:
  - We remain overly dependent on imported fossil based fuels especially for home heating and much of Northern Ireland has no choice of fuel other than oil or coal.
  - We have the highest levels of fuel poverty in the UK with the last official figures putting this at 42%.
  - Nuclear is not currently an economic option for Northern Ireland and, for that reason alone, never mind the politics, Northern Ireland energy policy remains firmly based on the development of local sources of renewable energy.
  - There is also a raft of EU targets to take into account: a 20% reduction in energy consumption; a 20% reduction in emissions; and 20% renewable energy, all by 2020 – note this final target for renewables relates not just to electricity but to total energy, including heat and transport fuels.
  - Key opportunities for renewables do exist around: onshore and offshore wind; marine/tidal; bioenergy and renewable heat but, beside these,

constraints do exist around grid development and environmental issues.

**SLIDE 4 – Strategic Energy Framework 2010**

- Having provided this brief overview as to the background, I would now like to move to outlining some of the areas of progress against the four key goals within the Framework document itself, namely: Building Competitive Markets; Ensuring Security of Supply, Developing our Energy Infrastructure and perhaps what many of you here today are most interested in, Enhancing Sustainability

**SLIDE 5 – Progress: Building Competitive Markets**

- The EU Third Energy Package provides for further liberalisation of energy markets across Europe, and takes earlier market liberalisation a stage further, resulting in Third Package requirements for unbundling of transmissions systems, and enhanced consumer protection arrangements.
- DETI made Regulations in April 2011 to transpose the vast bulk of the gas and electricity Directive requirements, and in October 2012 completed consultations on a number of remaining issues, including changes to powers in respect of modification of energy licences and around electricity distribution requirements and associated exemptions.
- There is increasing impatience in Brussels that Member States deliver market liberalisation, and a requirement that Departments, Regulators, and the energy industry to work quickly towards the envisaged Market Integration projects.
- The Single Electricity Market established in 2007 was “ahead of the game” in that it was the first such market between two EU Member States, and delivered greater transparency which has contributed to new power generation on the island and new electricity suppliers entering the business and domestic retail electricity markets.

- EU proposals for further integration – In February 2011 EU Ministers agreed to couple national electricity markets, for example, coordinated price setting and trading by 2014, set against a target model for the Internal Market. In recognition of the magnitude of change required by SEM to comply with the common target model objectives, the Agency for the Co-operation of Energy Regulators (ACER) has provided a two year transition period to 2016. Any outstanding areas of harmonisation will be taken into account in the development of the new market arrangements. Work to progress new market design is underway and the SEM Committee will shortly publish its Final Decision Paper on high level design elements. This is an important step in the process.
- Retail competition is now well established at all levels within the electricity sector since full market opening in 2007, and a new customer switching became operational in May 2012 without any limit on customer numbers wishing to switch supplier. Competition is also in place in the Greater Belfast gas market, and the first stage of gas market opening in the “ 10 Towns” gas licensed area outside Belfast commenced in October 2012 with the large industrial and commercial sector becoming open to competition, followed by full market opening in April 2015.

#### **SLIDE 6 – Progress: Security of Supply**

- As the UK has become a net importer of natural gas in recent years, there has been significant investment in Great Britain in gas storage and liquefied natural gas (LNG). Most of you will be aware that Northern Ireland obtains all of its natural gas requirements from Britain – the Republic of Ireland has had some indigenous gas, but is also heavily reliant on GB for its gas supplies. The Department is therefore encouraged by current interest in the development of underground gas storage in East Antrim.
- The importance of gas security of supply for Northern Ireland cannot be underestimated - 2 of our 3 conventional power generation stations are gas fired and we have some 150,000 gas consumers in Greater Belfast and a further 16,500 customers connected to gas in the “10 Towns” gas licensed area outside Belfast.

- A reliable electricity grid is also of major importance. At a time when we are seeing significant investment in renewable generation, work is ongoing on how best to develop the grid to ensure that constraints on renewable generators are minimised - a key piece of grid infrastructure is the new high voltage North – South electricity link which is currently in the planning process. The new electricity link is also important in relation to our overall security of electricity supply, with more stringent EU targets on emissions from power stations resulting in a future need for greater capacity for power transfers between Northern Ireland and the Republic.
- We have also seen a number of faults in recent years on the Moyle electricity interconnector with Britain, and it is important for our security of supply that this piece of our electricity infrastructure is restored to full capacity. Work between the Regulator and the owners of the interconnector to examine a wide range of options is underway.
- Higher levels of renewable generation also brings challenges around system management and ensuring we have the most suitable type of generation to support renewables. Our conventional generation will continue to adapt to these new challenges with important roles for the system operator, the operation of the electricity market itself, and of course investment in suitable generation.

### **SLIDE 7 – Progress – Developing our Energy Infrastructure**

- Moving on to progress against developing our energy infrastructure goal:

#### Gas Network Extension

- The Department recognises the need for investment in our energy infrastructure and has been working with the Utility Regulator and the energy industry on how best to extend the provision of natural gas in Northern Ireland.
- Significant work has been completed to date to consider the technical and economic issues associated with extending the gas network to 7 main towns

in the West and North-West – namely Dungannon, Coalisland, Cookstown, Magherafelt, Omagh, Strabane, and Enniskillen/ Derrylin. (

- I am delighted to say that the Executive recently agreed to support the Department's gas extension proposals for the West and North-West, and to provide government subvention of some £32.5million towards the project. This will of course require State Aid approval. The Department also wishes to see natural gas provided in other areas including the main towns in East Down. Extension of natural gas networks ultimately will depend on the availability of sufficient gas loads in new areas and the willingness of consumers to convert to gas.
- Extension of existing natural gas provision offers businesses and domestic consumers an opportunity to reduce their energy costs ( based on current price comparisons with oil), and in the case of householders to more easily budget for the energy needs through use of gas pre-payment meters which have proven very popular with consumers.
- Larger businesses have the potential to realise significant savings by converting to gas and to realise further benefits by installing gas fired Combined Heat and Power systems - as several companies have already done in the existing gas licensed areas.
- There are also significant environmental benefits from further gas "roll-out", and while natural gas is of course a fossil fuel, it is the least polluting one, and can provide a "transition" from more polluting oil and coal towards a greater intensity of renewables as these technologies mature and costs come down further.
- The Department's aim is that work to provide new gas transmission networks can commence in 2015, with roll-out of gas distribution networks in the respective towns over the following years. To achieve this we are working with the Utility Regulator in relation to a licence competition, and with the energy industry, and other stakeholders.

### Gas Storage/Compressed Air Storage

- The Department is also encouraged by interest in the development of underground gas storage in East Antrim, and by proposals for underground compressed air storage linked to new gas fired generation in the same area. A licence has been granted by the Utility Regulator, and planning approval by DOE, to facilitate development of the Islandmagee gas storage project, at Larne Lough.
- These projects are being led by the private sector, however the Department recognises the benefits to our security of energy supply, and to the wider economy through the construction works and ongoing operation of the new facilities providing much needed employment.

### Electricity Grid

- NIE, as grid owner, is responsible for developing the plan to strengthen the network.
- Building costs associated with the grid infrastructure will ultimately be recovered from consumers over a period of up to 40 years; with costs staged over this period. Costs will depend on the scale of investment and period agreed by the Regulator.
- The Department is also working with regional partners to develop a supportive policy, regulatory and consent environment for commercial offshore grid investment to ensure that there is a coherent approach for investors. As mentioned, the work with Crown Estates for a Northern Ireland commercial leasing round for offshore generation is now well underway.
- The ISLES Offshore Grid Study has examined the concept and feasibility of a regional offshore grid network to generate and transmit wind power further off the coasts of Northern Ireland, Scotland and the Republic of Ireland. Building on this study, proposals for ISLES2 are well developed. ISLES2 will examine ways to reduce regulatory complexities around the development of an interconnected offshore grid by promoting common, agreed and workable solutions around areas such as planning and information sharing that to allow

electricity markets in different countries to operate cooperatively. This work will inform government policy on future marine grid infrastructure and feed into the work of the EU's North Seas Offshore Grid Initiative.

**SLIDE 8 – Progress: Enhancing Sustainability**

- I know that the audience today will be particularly interested in our progress under the enhancing sustainability goal which encompasses both renewable energy, the focus of today's discussions, but also and importantly energy efficiency. We have heard from the earlier speakers their views in our progress and now I would wish to comment on a few of these in a little more detail. These are: Onshore and Offshore Renewables; Renewable Electricity Incentivisation and Electricity Market Reform and Renewable Heat.

**SLIDE 9 – Onshore Renewables**

- The SEF set the overall strategic backdrop within which DETI is taking forward two key plans to facilitate onshore and offshore development opportunities to contribute to our 2020 targets and beyond.
- The onshore plan looks at different potential scenarios for different technologies - onshore wind, biomass and other small scale technologies - to contribute to the 40% target. Low and high scenarios have been considered and key actions to support onshore sustainable development developed.
- We must remember that the 40% renewable electricity target is not an onshore wind target. There are a number of other technologies - both onshore and offshore which will contribute to the target, but it is a matter for the market, not government, to bring forward the range of renewable energy technologies.
- Significant grid reinforcement will be needed - this is a matter for the Regulator. DETI will continue to work with all stakeholders to move us from the current position of over 14% renewable penetration to the 2020 target of 40% target.

**SLIDE 10 – Onshore Renewables continued**

- We have completed a Strategic Environmental Assessment of our draft onshore renewable electricity action plan.
- We received only 24 consultation responses to this plan and while on many issues there was consensus the issue of onshore wind capacity and the impact of dispersed or clustered development going forward split our respondents' right down the middle.
- Since we have published the plan therefore we have been working closely with the Department of the Environment to agree joint actions in relation to these issues.
- We hope to finalise the plan by the end of March 2013 and then submit it to the Executive – as it is now covers cross cutting issues – and should be in a position to publish the final plan before the summer.

**SLIDE 11 – Offshore Renewables**

- In October 2012 , The Crown Estate, who manages the seabed around the UK, announced that it was offering development rights for projects capable of generating 900MW renewable electricity in the first NI Offshore Renewable Energy Leasing Round.
- This major announcement by The Crown Estate was made possible by the development over the last couple of years of DETI's Offshore Renewable Plan. The Plan, published in March 2012, contains a range of actions out to 2020 to facilitate these developments.
- The successful consortia are First Flight Wind, which involves DONG Energy, RES and B9 Energy, and plans to develop a 600MW offshore wind farm off the south Down coast. Tidal Ventures Ltd, which is a joint venture between Bord Gais and tidal device manufacturer Open Hydro, has been offered a site to develop a 100MW tidal project off Torr Head on the North coast. A further 100MW tidal project at close by Fair Head will be developed by DP Marine Energy and DEME Blue Energy.
- Over the next couple of years, these companies will refine their project proposals and undertake detailed surveys and local stakeholder engagement to secure the necessary consents and licences. If granted, they could be

building out the projects from 2017-2018 making a contribution to the Executive's target of 40% renewable electricity consumption by 2020.

- There is a range of work underway by DETI to support offshore renewables including the Offshore Renewable Bill which will include proposals for decommissioning, safety zones and navigational matters which are in GB waters but need to be in place for NI waters.
- In addition to other benefits of renewables, the development of offshore renewables is an excellent opportunity for Northern Ireland in so many ways – energy security and diversity; climate change mitigation; a contribution to our 2020 renewable electricity targets and beyond and, of course, the business supply chain opportunities for our local companies, over the next few years as projects come on stream.
- While this is our first leasing round, Northern Ireland companies have been seeking and winning business through the existing GB leasing rounds.
- Belfast Harbour has already positioned itself as an Irish Sea Logistics centre. The £50m DONG Energy project, which is on schedule for completion next year, is consolidating Belfast as one of the UK's leading renewable energy hubs.
- Two large offshore wind sub stations left Harland & Wolff recently for a 160 turbine wind farm off the North Wales coast. Harland & Wolff has shown its skills in using experience from its long shipbuilding history to win orders in the current maritime growth sector.
- The UK offshore wind market is the largest in the world in terms of installed capacity and in the next 10 years, significant growth is expected in the UK offshore wind market that will lead to a potential investment in the region of £100 billion.
- The marine sector is still developing but a recent Low Carbon Innovation Group reported that UK is uniquely well positioned to capture market share.

- We currently have over 400 companies on the Invest NI database who have the capability of working on the various parts of the offshore supply chain, potentially providing a wide range of jobs in Northern Ireland. From geologists to biochemists; pipefitters to crane operators; welders to helicopter pilots; sales staff to factory worker; environmental consultants to fishing sector. The range is really quite extensive.
- My Department and Invest NI are therefore keen to work closely with developers and their sub contractors to show them how Northern Ireland's skills and expertise can help them achieve that vision. I hope that our Leasing Round can contribute to this vision.

## **SLIDE 12 – Renewable Electricity Incentivisation**

- The NIRO is DETI's main policy mechanism for incentivising renewable electricity generation in Northern Ireland. It works alongside the Renewables Obligations for Scotland and England & Wales.
- Since its introduction in 2005 it has been instrumental in increasing renewables consumption from a base of 3% to around 14% now.
- It covers a wide range of technologies – of all sizes – and has been adjusted over the years to reflect the needs of Northern Ireland generators and more recently the reducing cost of some renewable technologies.
- But we are part of a wider UK market for renewables and how technologies are incentivised will change as part of Electricity Market Reform.
- It is also worth noting that Northern Ireland will also move to introduce a separate small scale FIT thus ensuring that renewables of all sizes continue to contribute to our wider energy targets. We will be consulting in the autumn in relation to the introduction of a small scale FIT.

## **SLIDE 13 – Renewable Electricity Incentivisation continued**

- The DETI Minister, Arlene Foster, announced in May of this year that the Renewable Obligation in Northern Ireland will close to new generation in 2017 and large scale technologies will be incentivised by way of a Feed-In Tariff

with Contracts for Difference. These FIT CFDs will be available for projects commissioning from 2016.

- In November 2012 DECC introduced the UK Energy Bill to Westminster and the provisions in the Bill extend to Northern Ireland and will provide the framework for the rollout of Electricity Market Reform here.
- One key aspect of Electricity Market Reform is the setting of renewable strike prices. You will see in the Bill that the Minister has retained a power to consent to a different, socialised, strike price to be set for Northern Ireland as well as a power that allows her to set a different strike price altogether should she wish to. This was instrumental to Northern Ireland retaining its devolution settlement in relation to devolved energy policy.
- It is much more cost effective for Northern Ireland to be part of a support mechanism where the cost is spread across the 27 million consumers across the UK rather than part of an all island support system where the cost would only be spread across 2.5 million consumers. And of course a stand alone NI support scheme would be much too expensive with only 800,000 consumers to spread the cost across.
- The first indicative strike prices for Northern Ireland will be published as part of the UK wide delivery plan in July.

#### **SLIDE 14 – Renewable Heat**

- DETI is committed to developing the renewable heat market in Northern Ireland as there are many benefits in doing so such as increased fuel security, reduced carbon emissions and the opportunity in this sector for 'green' jobs. As already stated the SEF includes a target of 10% renewable heat by 2020 against a 2010 baseline position of 1.7%.
- DETI launched the Northern Ireland Renewable Heat Incentive (RHI) in November 2012. The RHI provides long term support for those installing renewable heating technologies with payments lasting for the lifetime of the technology and designed to cover the additional costs of the renewable heating system in comparison to conventional heating systems.

- The scheme is open to the non-domestic sector and supports the most well established technologies. A second phase of the RHI is currently being developed and will consider the extension of the scheme to domestic consumers and support levels for emerging / innovative technologies.
- In the interim, the Renewable Heat Premium Payment scheme provides grant assistance for domestic customers wishing to install renewable heating technologies such as biomass boilers, ground source or air source heat pumps and solar thermal panels. To date, DETI has approved 530 applications, representing a commitment of £810,000.
- The RHI and RHPP represents financial support of up to £25m for the renewable heat market up to 2015, and will assist in reducing carbon emissions, increasing energy security and creating opportunities for 'green jobs'.

## **SLIDE 15 – What Next**

- Greater penetration of natural gas within existing gas licensed areas and availability of gas to new areas with corresponding reduction in greenhouse gases.
- DETI will continue to engage and work with DCENR, DECC and the appropriate Regulatory Authorities to progress the development and implementation of the European Target Model to facilitate electricity market integration in line with the Commission's deadline of 2016

## Energy Efficiency

- The Strategic Energy Framework stated that DETI would consider "increasing end user efficiency through a Carbon Emissions Reduction style supplier obligation". Research took a step back from that and looked at a number of options for increasing energy efficiency in Northern Ireland.
- Following on from that research, DETI consulted over last summer as part of a wider consultation on a new Energy Bill on a proposal for a new energy

efficiency obligation which could offer new energy efficiency opportunities for Northern Ireland. Consultation responses were cautiously supportive of such a move, with a number of issues of detail raised which would be worked out for any secondary legislation.

- Action on energy efficiency would assist in meeting a number of the key energy goals which I outlined earlier: helping to reduce fuel poverty levels; reducing the amount of fossil fuels which are needed in Northern Ireland; and, crucially for today's discussions, making it easier and more affordable to meet renewable energy targets. It could also provide market pull for green jobs, help to revitalise the economy and it could offer opportunities to local businesses to develop markets for energy saving technologies and services which will contribute to improving Northern Ireland's competitiveness and security of supply.

## New Energy Efficiency Directive

- A new Energy Efficiency Directive came into force in November. It establishes a common framework of measures for the promotion of energy efficiency within the EU.
- Member states will have to comply with most of the provisions of the Directive - by June 2014. This will be the main focus of Departments' work on energy efficiency over this timeframe.

## **Concluding remarks:**

- Renewable energy is about innovation, growth and opportunities. As the costs and security of supply of non-renewables remain unpredictable and ever increasing, the economic and environmental benefits of renewables and offshore renewables become clearer.

- Energy developments – and critically a robust and flexible grid infrastructure to support them – must be seen as investments now to deliver longer term benefits and savings for businesses and consumers alike.
- I see renewable energy as a key contribution to the decarbonisation of our energy mix both now and up to 2020 and beyond. .
- Thank you.

**RENEWABLE ENERGY LINES TO TAKE****TOPIC: ELECTRICITY MARKET REFORM****Positive lines**

- On 22 May 2012, the Minister announced that Northern Ireland would implement a number of the UK-wide Electricity Market Reform (EMR) measures.
- This includes:
  - Closure of the NIRO to new generation from 1 April 2017
  - Introduction of a UK-wide Feed-In Tariff with Contracts for Difference
  - Administration of the Contracts on a UK-wide basis
  - Emissions Performance Standard for any new coal-fired power stations.
- The Minister's May announcement followed approval by the Executive for DETI to table a Legislative Consent Motion (LCM) in order to extend powers for electricity market reform to Northern Ireland via the DECC 2012 Energy Bill.
- The Motion is due to be debated by the Assembly in February.

**Defensive lines**

- The Northern Ireland consumer base cannot afford to subsidise a Northern Ireland-only incentive mechanism.
- A UK-wide mechanism, funded by all UK consumers, is the best approach for Northern Ireland.
- The Minister has received assurances from the DECC SofS that if this Assembly agrees to the introduction of a UK-wide FIT in Northern Ireland then the costs associated with its operation will be spread across all UK consumers as currently happens with the NIRO.
- DETI has worked closely with DECC and the Utility Regulator to make sure that the EMR proposals can work in Northern Ireland.

**TOPIC: FEED-IN TARIFF WITH CONTRACTS FOR DIFFERENCE****Positive lines**

- A Feed-In Tariff with Contracts for Difference will be used to incentivise large scale renewable electricity generation when the Renewables Obligation closes to new generation in 2017.
- A contract for difference is a long term contract that provides stable revenues for low carbon energy projects at a fixed level known as a strike price. These contracts will help developers to secure the large upfront amounts of capital investment required for low carbon infrastructure.
- By providing a fixed price they will help lower the cost of capital. They will protect consumers from high bills by clawing back money from generators if the market price of electricity rises above the strike price.
- CfDs will apply across the UK but I have ensured that Northern Ireland retains the right to set its own support levels where there is clear evidence that this is necessary.
- DETI has worked closely with the Department of Energy and Climate Change in London, the Utility Regulator and the System Operator to ensure that the CfDs work for Northern Ireland generation.

**Defensive lines**

- In the longer term in order to improve security of supply low carbon generation needs to compete fairly on cost.
- Electricity Market Reform is designed therefore to put in place market and institutional arrangements to provide certainty for investors going forward.
- DETI has secured agreement from Whitehall that the costs of Contracts for Difference will be socialised across all UK consumers as currently happens with the Northern Ireland Renewables Obligation.
- An incentive mechanism funded only by Northern Ireland consumers would be too expensive and not allow us to reach the 40% target by 2020.

**TOPIC: NORTHERN IRELAND RENEWABLES OBLIGATION****Positive lines**

- The NIRO has been very successful in incentivising renewable electricity generation.
- Since its introduction in 2005, renewable electricity generation has increased from 3% to approximately 14% now.
- It works on a UK-wide basis but we have been able to tailor the NIRO to reflect the needs of local stakeholders – for example the higher ROC levels for small scale onshore wind, hydro, solar and anaerobic digestion.
- We are ensuring that the NIRO continues to encourage investment up until its closure to new generation in 2017 – for example, by extending its operation until 2037 to ensure generators accrediting up until 2017 receive the full 20 years support.

**Defensive lines**

- The recent UK-wide banding review confirmed that costs for some technologies have reduced and this is reflected in the new bands which will come into operation in April.
- For example, large onshore wind will see a ten percent reduction to 0.9 ROCs whilst wave and tidal will see an increase to 5 ROCs.
- It is important that incentives reflect costs to ensure we meet our renewables targets at least cost to the consumer.

**TOPIC: SMALL SCALE FEED-IN TARIFF (FIT)**

Positive lines to take

- A small scale FIT will ensure that smaller generators continue to be incentivised following the NIRO's closure.
- A feed-in tariff can offer generators greater certainty on investment return than the ROCs.
- We hope to be in a position to introduce the FIT in 2015/16

Defensive lines to take

- A Feed-In Tariff with Contracts for Difference would be too complex for smaller generators (below 5 megawatts).
- The majority of respondents to recent consultations on the Northern Ireland Renewables Obligation and Energy Bill were in favour of a move to a small scale FIT.
- Support levels will need to be set at a rate that brings forward investment at least cost to the consumer.

**RENEWABLE ELECTRICITY TARGETS**12% PfG target by 2012

- PfG target of 12% renewable electricity consumption by 2012 exceeded.
- As at December 2012, nearly 14% (13.6%) of electricity generated by renewables.

20% PfG target by 2015

- We are confident that we will meet this target given the number of applications for renewable energy plants currently in the planning system.
- The Department receives data on renewable electricity generation on a monthly basis and from this information it is useful to note that 2011/12 was a very good year for renewables generation:
  - We have had a number of months where renewables generation significantly exceeded 12% including December 2011 – almost 19%
- Majority of renewables generation is from onshore wind.
- But starting to see increasing levels of non-wind renewables in technologies such as anaerobic digestion and biomass CHP.

40% target by 2020

- The 40% target equates to approximately 1600 MW of renewable generation by 2020, the majority of which will be met by onshore wind.
- NIAUR has approved expenditure to allow clustering and upgrade of the 110kV network to facilitate approximately 800MW of onshore wind by 2017 and some off shore capacity – this equates to approx 20% renewable electricity consumption.

- Further reinforcement of the 275KV network is required to accommodate more on shore wind and large volumes of off shore generation which are required to meet the 40% target.
- The Utility Regulator is responsible for the scale and magnitude of grid development – however without additional reinforcement to the 275 kV network the 40% target cannot be met.
- The changes to the NIRO for small scale wind and anaerobic digestion have resulted in increased volume of these technologies – this generation will connect to the distribution network (33kV and below).
- The distribution network requires significant upgrade quickly to allow connection of this magnitude of decentralised generation.
- DETI have established a grid sub group of the SEIDWG which will work with the Regulator, SONI and NIE to facilitate grid development in Northern Ireland.

**STRATEGIC ENERGY FRAMEWORK – 40% RENEWABLES TARGET**

- Electricity prices depend on wholesale market prices which are predicted to continue to rise in the period to 2020.
- The cost to consumers of renewable electricity to 2020 will depend on a number of factors, including the exact mix of technologies at that date.
- DETI has estimated that the combined cost of renewable electricity installations, together with the cost of the grid investment necessary to meet the 40% target, could be between £49 and £83 per household on an annual basis at current prices.
- These costs would only arise incrementally however as new grid and new generation is installed.
- In the longer term having a higher percentage of our electricity produced from renewable sources will increase security of supply and insulate us against further wholesale price rises.

**COST OF RENEWABLES TO CONSUMER**

- Move to more renewable energy brings many benefits - investment, exports and jobs.
- Most importantly improves our security of supply by reducing our dependence on fossil fuels.
- Need to take a long term view on energy prices. Increasing the amount and diversity of renewables in energy mix will insulate against future cost increases of wholesale oil and gas prices.
- Cost of not integrating renewables into the energy mix could be even higher in the long term. Investing in renewables now will mean cheaper energy in the longer term – for the next generation of electricity consumers.
- While existing costs of offshore renewables are high, work underway across the UK sector to make these technologies more competitive with other forms of low carbon power generation by end of the decade.

**CONNECTION CHARGES**High cost / delays of connecting renewables to the grid

- NIE operates under a regulatory framework determined by the Utility Regulator and as detailed in their licence.
- NIE is required under this licence to provide a connection offer to all generation connecting to the distribution system in line with their connection charging statement.
- This statement is monitored and enforced by the Utility Regulator.
- I understand that NIE has recognised the need to have adequate resources in place to meet the increasing number of connection requests.
- I understand NIE has responded to the rise in applications by recruiting a number of staff to the generation connections team as well as managerial and administrative staff.
- From October 2012 the Regulator removed the 40% subsidy on connection costs for small scale renewables. Connection costs for small scale generators are now entirely cost reflective.

**GRID DEVELOPMENT**Investment in the Grid

- The electricity network in Northern Ireland is facing unprecedented demand for the connection of new sources of renewable generation. The achievement of the SEF 40% renewable electricity target will require investment in additional renewable power generation.
- It is assumed that the majority of the renewable energy required to meet the target by 2020 is likely to come from large scale (>250kW) on shore wind generation.
- Up to 800MW of on shore wind generation can be accommodated by the grid in the short medium term (up to 2017). However the realisation of the North South Interconnector and further reinforcement of the 275KV network is required to meet the 40% target.
- The recent announcement by the Utility Regulator of £44m of investment for grid infrastructure approved to facilitate renewable generation will help facilitate the delivery of the 40% target.
- NIE, as grid owner, has been developing plans for strengthening of the electricity grid, and this is likely to occur in the West and North-West where the majority of new renewable generation is expected to be located.
- Grid strengthening plans will require the necessary approvals, including environmental consideration, and planning consent. Communication with stakeholders will be a key part of any grid strategy and DETI are working closely with NIE to ensure that a robust communications plan is put in place.

**ONSHORE RENEWABLE ELECTRICITY STRATEGIC ACTION PLAN**

- DETI has developed a draft Onshore Renewable Electricity Action Plan (OREAP) which aims to optimise the amount of renewable electricity generated from onshore renewable sources in order to enhance security of supply, reduce carbon emissions, contribute to the 40% renewable electricity target by 2020 and beyond and develop business and employment opportunities for NI companies.
- The OREAP was subject to a Strategic Environmental Assessment which considered the environmental impacts of increased levels of onshore renewable generation across Northern Ireland. The draft OREAP, along with the Environmental Report and Non-Technical Summary was issued for public consultation on the 24<sup>th</sup> October 2011.
- DETI is currently completing the statutory Habitats Regulations Appraisal (HRA) and is revising the Onshore Plan in light of consultation feedback
- Executive clearance will then be sought to publish the final Plan.

**OFF SHORE RENEWABLES**

- DETI has been leading cross departmental work to develop offshore renewable energy (wind and tidal) in Northern Ireland waters to contribute to the SEF 40% renewable electricity 2020 target and beyond.
- This work has provided the key strategic framework within which The Crown Estate launched the first Offshore Renewable Energy Leasing Round in Northern Ireland waters.
- In October 2012, TCE announced development rights to First Flight Wind for a 600MW offshore wind farm off the east coast of Northern Ireland. Tidal Ventures and DPME/DBE were each offered rights for 100MW tidal opportunities at Torr Head and Fair Head respectively.
- These successful developers are now undertaking their Environmental Impact Assessments to seek the necessary marine and electricity consents.
- This process will involve further surveys / research over the next couple of years and considerable consultation with stakeholders. If licences are granted, initiation stages for projects could be expected from 2016/17 onwards.

**OFFSHORE ENERGY BILL**

- DETI will shortly be consulting on the policy proposals for a number of offshore regulatory issues, including the safety and navigation zones, within a new Offshore Renewable Energy Bill.
- In addition, legislation may be required for offshore transmission and generation issues. The aim is that the regulatory regime in Northern Ireland should, as far as possible and practicable, mirror that in place in GB waters.
- NIAUR is currently developing a consultation on an Offshore Connection regime which is expected to be published within the coming months. The Department continues to liaise with NIAUR in the development of this consultation.
- It is DETI's intention to consult on the Offshore Renewables Bill in parallel with NIAUR's connection consultation to ensure that all aspects of the Offshore Connection policy are considered.
- It is planned to have this legislation introduced by March 2015. This has already been communicated to stakeholders in the recent Energy Bill consultation.

## Q &amp;A

## OFFSHORE RENEWABLES

**How will the Coastal Communities Fund help Northern Ireland communities?**

- Announced by the Chancellor in July 2011, new fund will be financed by the UK Government through the allocation of funding equivalent to 50 per cent of the revenues from the Crown Estate's marine activities in each country, with separate funding for each of the countries.
- The fund is available on a bid basis and is managed by the Big Fund, part of the Big Lottery Fund.
- Designed to support the economic development of coastal communities and will support a wide range of projects, including those that support charities, the environment, education and health, examples include improving skills, environmental safeguarding or improvement.
- Revenues from Crown Estate marine activities in Northern Ireland 2011-2012 were £1,000,000, therefore £500,000 will be available for bids from April 2013.

**How will the consenting and licensing stage work as there is no single body like the Marine Management Organisation or Marine Scotland? The DOE Minister is on record as saying he wants an MMO.**

- DOE and DETI are in complete agreement about the significant potential of offshore renewables for Northern Ireland and are working together to ensure the success of these developments.
- My Department has been working very closely with DOE/ NIEA over the last few years as this work has progressed and work is underway to streamline our respective processes where possible. Through the current NI Marine Bill,

which is moving through the NI Assembly process and should be enacted by early 2013, as well as administrative actions.

- A Memorandum of Understanding between the two Departments is in preparation which will set out roles and responsibilities.
- The published Regional Locational Guidance already sets out the detail and timescales for the NIEA marine licensing procedures and we plan to develop guidance notes for developers.
- We are very keen to learn from experience and expertise in GB waters and have been looking at the work of Marine Scotland and the MMO.
- Important that a consistent approach is taken to consenting and licensing issues across the UK, wherever possible.

#### **Will the development of Marine Plans hinder offshore renewables?**

- Well aware of the need to ensure that we improve the stewardship of our marine environment as well as enhancing the long term viability and sustainability of marine industries.
- I believe the development of marine plans across the UK is important and my Department is working very closely with the Department of the Environment to ensure that offshore renewable interests are fully taken into account.
- Through our offshore renewable SEA work in the last couple of years, we have drawn together much of the data to inform the development of the NI Marine Plan.
- I believe that the key is strong and early engagement with all parties to ensure that the range of economic, social and environmental issues are considered.

#### **Is there still a problem with regard to marine jurisdiction issues with ROI?**

- I was very pleased to welcome the signing of the Memorandum of Understanding between the UK and Republic of Ireland Governments last year which set out marine boundaries for offshore renewables. This political agreement has delivered the clarity for all parties -in particular the developers and their investors – and enabled our leasing round to proceed as well as facilitating activity in the ROI waters.
- My Department will continue to work with the relevant authorities to move towards a legal agreement on this issue and I understand that discussions continue between both Governments on a wider range of issues within the marine environment.

**Will the Northern Ireland Grid be able to handle this offshore generation?**

- Just like other parts of the UK, there is a need for grid development not just for offshore but to handle additional onshore renewable generation and for necessary backbone network reinforcement.
- Important to design a network now in such a way as to provide a robust and flexible infrastructure that can be adapted to accommodate increasing levels of renewables not just to 2020 but well beyond.
- Decisions on the level and timings of investment proposals by Northern Ireland Electricity are a matter for the independent NI Regulator and I understand that he will soon be publishing his determination in relation to the next price control period up to 2017.

**What about Northern Ireland's offshore transmission regime and connection policy? Will you be introducing an Offshore Transmission Owners (OFTO) regime as is the case in GB waters?**

- Northern Ireland is part of the Single Electricity Market (SEM) on the island of Ireland.

- Generation/ Transmission issues are for a matter for the NI Regulator who will be consulting, in the near future, on an appropriate offshore framework within the SEM to accommodate offshore projects in Northern Ireland waters.
- I would encourage interested parties to submit their views on this key issue.

**Why were powers for offshore decommissioning not included in DETI's Energy Bill?**

- Policy work on offshore issues such as decommissioning and safety zones is ongoing.
- It was felt that bringing all the offshore issues together into a single focussed consultation would be a better approach in any case as it is a very specific group of stakeholders that would be interested in these matters.
- The Department is now working with other bodies, including NIAUR and NIEA on these issues and a separate consultation on legislative proposals for offshore renewable issues will be published in late 2012/early 2013.
- There is the possibility that this separate consultation may feed back into the current Energy Bill process but, if not appropriate, it will form the basis of a separate Offshore Renewable Bill which, it is expected, would be in place by end 2014/early 2015.

**What is your view of further grid integration across the British Isles/ Europe?**

- Along with Scotland and the Republic of Ireland, we have participated in the highly innovative ISLES project which reported at the end of last year.
- This very wide ranging piece of work considered the range of issues to be addressed in cross jurisdictional offshore grid development. While noting that it was technically possible, there would still be considerable work across e.g. different planning, consenting and support regimes.

- All three Governments will continue to consider the findings and further work is planned.
- The ISLES work can also feed into the broader North Sea Grid considerations.

## Northern Ireland Renewable Heat Incentive (RHI)

The tariffs that will be implemented are detailed below.

Tariff name	Eligible Technologies	Size range (kW)	NI RHI tariff (pence per kWh)	Length of tariff
Biogas injection	Biomethane injection and biogas combustion, except from landfill gas	Biomethane all scales, biogas combustion less than 200kWth	3.0	20 years
Biomass boilers	Solid biomass; Municipal solid waste (inc. CHP)	Less than 20kWth	6.2	20 years
		20 kWth and above up to but not including 100 kWth	5.9	20 years
		100 kWth and above up to but not including 1000 kWth	1.5	20 years
GSHP	Including water source heat pumps and deep geothermal	Less than 20kWth	8.4	20 years
		20 kWth and above up to but not including 100 kWth	4.3	20 years
		100 kWth and above	1.3	20 years
Solar Thermal		Below 200 kWth	8.5	20 years

**What is the Northern Ireland Renewable Heat Incentive?**

The Northern Ireland Renewable Heat Incentive (RHI) is a DETI scheme that provides financial support to non-domestic renewable heat generators and producers of biomethane.

**Why was the scheme introduced?**

The primary objective for the Northern Ireland RHI is to increase the uptake of renewable heat to 10% by 2020 (baseline position of 1.7% in 2010). The 10% target for renewable heat equates to 1.6TWh (or an additional 1.3 TWh when considering existing levels). This target was included in the Strategic Energy Framework and an interim target of 4% renewable heat by 2015 has been included in the Programme for Government.

In addition to achieving the set target, it is expected that the RHI will have a number of other wider benefits in terms of fuel security, lower emissions and 'green jobs'.

Renewable heat technologies are currently unable to compete with existing fossil fuel alternatives given the often higher capital costs and also the lack of understanding and awareness amongst consumers of what are often seen as innovative technologies.

Without the RHI in place Northern Ireland will not achieve either the targets set for renewable heat by the Northern Ireland Executive in the SEF or be able to contribute to the UK target set under the Renewable Energy Directive.

**How have the tariffs been designed?**

The RHI aims to compensate investors for the additional costs of renewable heat compared to traditional fossil fuel systems. For each technology, we have taken into account all the various types of costs involved (including capital, financing, barrier, fuel and operating) to produce a pence per kWh cost figure – this is known as a levelised cost methodology.

The RHI tariff setting methodology also includes the provision of a rate of return in order to stimulate interest in a developing unknown marketplace and to provide compensation for financing costs of making the necessary investment in capital projects. In most instances a rate of 12% has been set. Solar thermal receives a lower rate of return as it is a well-known technology, it's relatively easy to install and it will not displace the same level of fossil fuel as the other technologies. In addition solar thermal heat is, at present, more costly per unit of energy than other technologies.

### **Why are the tariffs lower than those available in GB?**

The Northern Ireland tariffs tend to be lower than those offered in the GB scheme as the NI tariffs are designed against an oil counterfactual rather than a natural gas counterfactual, as in GB. This reflects the heat markets in the two areas with oil the dominant heating fuel in NI at 75%+ and natural gas the dominant heating fuel in GB 70%+. Setting the counterfactual position against oil within the NI scheme reflects the likelihood that the majority of people switching to renewable heat will be displacing oil. As oil is a more expensive fossil fuel, less of an incentive is required to switch to renewable heat.

DETI does not think that NI consumers will be disadvantaged in comparison to GB consumers, as whilst the tariff levels are lower the ongoing savings that can be expected from switching to renewable heat will be considerably higher for NI consumers. Therefore the overall benefit for the consumer is similar.

### **Why is there no support for biomass installations over 1MW in size?**

Biomass installations over 1MW in size will not receive a tariff under the current banding proposals. The reason for this is that, analysis has shown that it should be cost effective for these sites to switch to renewable heat by 2020 and therefore an additional incentive is not required. Indeed, when calculating a tariff for these technologies, using the same methodology as for the others, the calculated value is negative i.e. no tariff is required.

DETI is however willing to examine any alternative evidence as part of the second phase of RHI.

**Why are air source heat pumps not being supported?**

Further work is required to better understand the costs of air to water heat pumps at the commercial scale before committing long-term support for it. DECC has already worked with industry to gather relevant data and DETI will liaise with DECC to consider this matter going forward. At this stage, DETI intend to look to extend eligibility for air to water source heat pumps in Phase 2.

For air to air heat pumps we also have to overcome the practical problems of measuring the heat they generate and ensure we do not incentivise the installation of air conditioners.

**How will payments be made?**

Payments will be made on a quarterly basis by the scheme's administrator, Ofgem. Payments will be calculated by multiplying the actual metered heat output of the technology over that quarter with the designated tariff.

**Will heat be metered?**

Yes, all technologies installed under phase 1 of the NI RHI must have an appropriate heat meter installed. (Heat meters must fall within the accuracy of class 2 of Annex MI-004 of the EU Measuring Instruments.)

**Will tariffs change over time?**

Once an installation is accredited under the scheme they will receive a fixed level of support which will be adjusted annually in line with inflation. However, to ensure the scheme is cost effective the tariffs will be reviewed over time and the new tariffs will be applied to anyone joining the scheme. The tariffs will be amended annually to reflect the Retail Price Index.

**Who is eligible to apply for the scheme?**

The scheme is available to generators of heat and producers of biomethane that meet the eligibility criteria, that are based in Northern Ireland.

At the start of the scheme only non-domestic sectors will be supported. We intend to introduce a second phase of support which will establish support for the domestic sector as well as a number of other technologies and fuel uses that we are unable to support from the outset. The non-domestic segment includes businesses; public sector; charities and not-for-profit organisations; and industry.

A non-domestic installation is a renewable heat unit that supplies heat to anything from large-scale industrial heating to small business and community heating projects. This includes small businesses, hospitals, schools etc as well as district heating schemes (e.g. one boiler serving multiple homes).

### **When will the scheme close to new applications?**

It is expected that the scheme will remain open to new installations until March 2020. A review of the RHI will take place in 2014/15.

### **How long will the incentive payments last?**

RHI support for the first phase is for the lifetime of the technology to a maximum of 20 years.

### **I have already installed a renewable heat technology, am I eligible?**

Eligible equipment commissioned on or after 1 September 2010 will be able to avail of the RHI, however a suitable heat meter must be installed.

### **Why are domestic installations not included at this stage?**

A second phase of support will be introduced for some areas that won't be supported from the outset, including domestic installations. There are a number of important factors, specific to the domestic sector, that we need to consider further before we can launch a full RHI scheme for domestic buildings and ensure we pursue the most cost-effective way of increasing renewable heat at this scale. These include issues

about how renewable heating systems operate in various types of homes and in combination with solar thermal panels; what the impact of changing the heating system is on the householder in terms of different behaviour; how long the RHI payback period should be, given the frequency with which people move house and the ways in which households raise and pay back finance; and how payments could be made, either through metering or a 'deemed' approach.

### **What support is currently available for the domestic market?**

The Northern Ireland, Renewable Heat Premium Payment (RHPP) scheme is a government support scheme to help domestic householders install renewable heating and hot water systems in their homes.

Individuals will be able to apply for a voucher which will be issued if their application is successful. When the qualifying technology has been installed the voucher can be exchanged for grant money.

The scheme was launched by the DETI Minister on 24 May 2012. Please read the eligibility criteria listed on the DETI website ([http://www.detini.gov.uk/deti-energy-index/northern\\_ireland\\_renewable\\_heat\\_premium\\_payment\\_scheme\\_.htm](http://www.detini.gov.uk/deti-energy-index/northern_ireland_renewable_heat_premium_payment_scheme_.htm)) to make sure you are eligible for the scheme before making an application. If you don't have access to the internet you will be able to apply by calling an advisor on 028 9052 9219.

The voucher values for each of the technologies are listed below.

<b>Technology</b>	<b>Voucher Value</b>
Air Source Heat Pump	£1,700
Biomass boiler	£2,500
Ground Source or Water Source Heat Pump	£3,500
Solar Thermal Hot Water	£320

DETI has confirmed that renewable heat installations installed in homes since 1 September 2010 will get the Renewable Heat Incentive once it comes in, provided they meet the eligibility criteria. They have also confirmed that this will include those

who receive support under the N Ireland RHPP scheme, though the term of the incentive will be reduced to factor the grant paid.

## **What issues will DETI consider as part of phase 2 of the RHI?**

Some of the issues that DETI wish to consider as part of phase 2 of the RHI are;

- Extension of the scheme to the domestic sector;
- A specific tariff level for deep geothermal heating (currently treated like ground source heat pumps);
- The introduction of tariff for Air Source Heat Pumps, Bioliquids; Solar thermal above 200kw;
- The need for support for large biomass installations; and
- The potential development of an 'uplift' to for community or district heating schemes.

There may be further issues that DETI wish to consider relating to land fill gas, direct air heating and large biogas.

## **What is the timescale for phase 2?**

At this stage DETI is keen to implement phase 2 in autumn 2013. A public consultation on this matter will be held in spring 2013.

**ANNEX E****PEN PICTURES**

**Richard Cowell** is a Reader in Environmental Planning at the School of Geography and Planning. He has 20 years of research experience in the field of sustainability and planning, and currently specialises in the role of planning in promoting renewable energy, community benefits from renewable energy and major infrastructure decision making. Richard is also the director of the ESRC research project 'Delivering renewable energy under devolution'.



**Geraint Ellis** is Senior Lecturer in the School of Planning, Architecture and Civil Engineering at Queen's University, Belfast and Co- Editor of the Journal of Environmental Policy and Planning. He has published widely on the way planning relates to energy, health and marine issues and has recently edited 'Learning from Wind Power: Governance, Society and Policy Perspectives on Sustainable Energy', published by Palgrave in 2012.



**Brian Motherway** was appointed as Chief Executive Officer in the Sustainable Energy Authority of Ireland (SEAI) in May 2012. He was formerly Chief Operations Officer and Head of Strategy and Innovation. Prior to joining SEAI in 2006 he was a consultant on energy and environmental policy. Brian holds Bachelors and Masters degrees in Engineering and a PhD in Sociology.

# **Delivering Renewable Energy Under Devolution**

**Initial findings summary report, January 2013**

**A research project funded by the Economic and Social Research Council (RES-062-23-2526)**

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## 1 Introduction

This report presents the initial findings of a two-year research project, funded by the Economic and Social Research Council (ESRC), to assess the effects of devolution within the UK on the delivery of renewable energy: wind, solar, biomass, hydro, wave and tidal power. The period of devolution, from 1998 onwards, has seen dramatic increases in renewable electricity generating capacity, never seen before in the UK. The report examines how far the devolved governments in Northern Ireland, Scotland and Wales have pursued different strategies for renewable energy, made different use of the policy instruments available to them, and whether they have had any effect on the rates and direction of renewable energy development.

Tracing the relationship between devolution and renewable energy is simultaneously vital yet problematic. It is vital because a high proportion of the potential renewable energy resources of the UK are deemed to lie within the territory of Northern Ireland, Scotland and Wales and the extent to which they are realised will affect whether UK renewable energy and decarbonisation targets are met.

It is problematic because devolution is a complex process and promoting renewable energy requires the pulling together of an array of factors – economic, technological, social and political – which operate at multiple spatial scales. Tracing causal connections between actions arising from devolution and renewable energy outcomes is difficult to do and requires great care.

This study ran from January 2011 to January 2013, and has drawn on more than 80 interviews with senior figures in government (at all levels), politicians and officers, energy companies and trade associations, and non-governmental organisations, supported by the analysis of policy and planning documents.

## 2 What do the renewable energy statistics tell us?

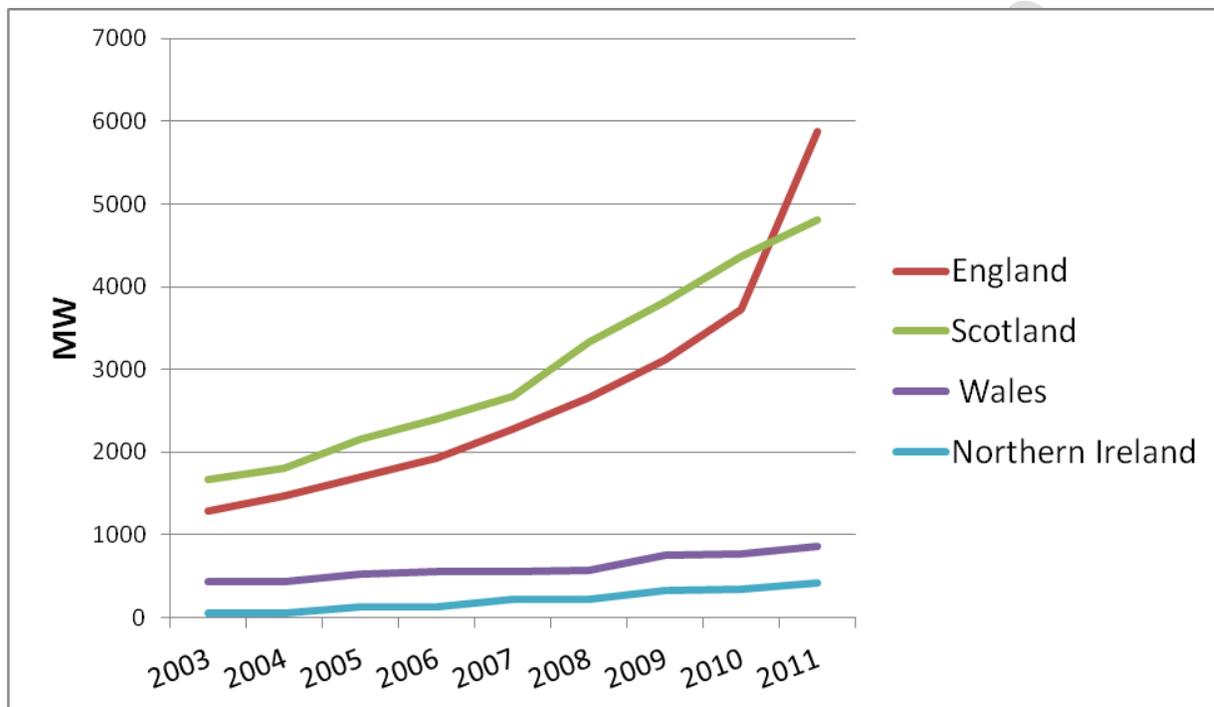
Official renewable energy statistics show the levels of renewable development in each part of the UK, as summarised in Figure 1 below. Other data shows that the level of renewable energy capacity in place prior to devolution in 1998/1999 was low: in general, capacity has expanded most significantly since 2002-2003.

This raises the question of *when* it might be reasonable to expect the devolved governments to begin exerting any effect on renewable energy development. There was political interest in promoting energy development, including renewables, within the 1999-2003 Scottish Parliament; in Northern Ireland however, the Assembly only emerged fully from suspension in 2007.

The statistics on capacity installed echo the general message we received from our research: that Scotland could be considered a leader in renewable energy development within the UK. Much of this growth has come from on-shore wind, which grew ten-fold from 308MW in 2003 to 3016MW by 2011, added to hydropower capacity inherited from earlier in the twentieth century. Renewable energy in England relies more heavily on landfill gas and, more recently, offshore wind and biomass co-firing plus, to a lesser extent, solar PV. Onshore wind is the main new renewable energy technology in Northern Ireland and Wales, which have also witnessed increases during devolution.

Measuring megawatts and terawatt-hours is more straightforward than judging performance. If one looks at rates of increase in renewable capacity from 2003, then the performance of Northern Ireland looks more dramatic – having achieved a twenty-fold increase in capacity between 2003 and 2011 (48MW to 427MW). Looking at renewable energy installed per capita makes the level of development in Scotland look more impressive, and places England – with its higher population – below Northern Ireland and Wales.

**Figure 1** Installed renewable energy capacity 2003-2011 (MW)



(Source: RESTATS historic regions data)

An alternative way to judge progress is against the aims and targets for renewable energy that each of the devolved governments have set themselves:

- Scottish Government – matching 100% of Scottish electricity consumption with renewable energy by 2020.
- Welsh Government – an aim to meet the equivalent of twice 2010 electricity consumption in Wales from renewables by 2025.
- Northern Ireland – to source 40% of its electricity consumption from renewable sources by 2020.

A key pattern, and policy output of devolution, is that all of the devolved governments have identified aims that are above the UK target (as underpinned by the EU Renewable Energy Directive) of meeting 15% of energy from renewable sources (equating to roughly 30% of electricity demand) by 2020. Scottish Governments have a sustained record of meeting their 'domestic'

targets, but renewable energy ambition is a feature of policy and political discourse in all the devolved governments.

However, one cannot easily use the statistical data to make causal connections i.e. to infer that the levels of renewable energy development in any part of the UK can be attributed neatly to actions by the government of that area.

### **3 Powers and explanations**

The formal position on energy governance in the UK is often summarised as ‘energy policy is not devolved’. In practice the devolved governments each possess a different array of powers relevant to the shaping of renewable energy development:

- Energy policy is in fact fully devolved to the Northern Ireland Executive (apart from nuclear energy, of which it has none), including powers to design and operate systems of market support, and full planning and consent powers over electricity infrastructure, onshore and offshore.
- In Scotland, energy policy is executively devolved, which gives Scottish Ministers full control over major energy consents and planning, onshore and offshore, and operational control over market support systems.
- The Welsh Government has the fewest powers, of which the most pertinent are planning policy, overseeing planning and consents for smaller renewable energy generation facilities and, like Northern Ireland and Scotland, responsibility for discretionary economic development spend.

The main policy-making powers and capacity lie in London, with DECC and the Treasury playing central roles. This applies especially to the design of systems of market support, oversight responsibility for regulating energy networks, and negotiation with the EU on energy-relevant policy. Arms-length agencies like the regulators and the Crown Estate also have key roles to play in the deployment of renewable energy

Although much political debate about devolution focuses on who, at what level, possesses which powers, one cannot neatly read off the achievements of the devolved governments with renewable energy from the powers they do or do not possess. Governing energy typically brings together multiple levels of government (including EU and local government) making inter-governmental relations important, and the devolved governments do engage in debates about renewable energy development with Westminster.

The critical issue is not just the distribution of powers that may influence the deployment of renewable energy, but those factors which shape the capacity and propensity of government to make use of them, viz:

- The way in which the devolved governments approach renewable energy may reflect institutions and cultural practices inherited from the period prior to 1998/1999;
- Policy formulation and implementation is affected by the networks of other actors that make up the wider policy community, and their capacity to exert influence at local, devolved or UK levels;

- Energy pathways are constituted by ‘socio-technological regimes’ - a relatively stable set of arrangements, in which market and regulatory practices, prevailing infrastructures, and incumbent actors operate in ways to maintain the dominance of particular technologies and norms (so called ‘path-dependency’), which may be difficult for government at any level to steer;
- The capacity for realising renewable energy capacity reflects social acceptance, often shaped by the expectations and politics of place which permeate potential renewable energy sites;
- In theory, one might expect devolved government to have advantages over Westminster, in that it is closer and, potentially, more responsive to the nuances of territory and society, and to key stakeholders.

#### **4 Causal factors**

In the main part of the report we examine four sets of factors that shape the effect of devolved government on renewable energy, namely: political conditions; market support; planning and consents; the grid.

##### *Political conditions*

Given that devolution set out to create new, representative political institutions, one should look for the effects of devolution on the politics surrounding energy development and renewables.

Our main finding is that the political conditions for the large-scale rolling forward of renewable energy have been especially conducive in Scotland and it is looked to as a leader of this sector from throughout the UK. This can be attributed partly to the Scottish National Party, which has long regarded energy development as central to the economic future of an independent Scotland. Importantly, however, the expansion of renewable energy is the subject of cross-party support, with key policy developments arising from earlier Labour-led Scottish Governments. Bolstering this political position is the existence within Scotland of major energy businesses: some an echo of the business structures created at electricity privatisation (and before); some linked to offshore oil and gas; which have been brought into the Scottish policy-making process (notably in the Energy Advisory Board), and broadly share the Scottish Government’s aspirations.

There is thus a high level of elite coherence and consistency over energy development in Scotland, which helps legitimise and rationalise assertive use of the powers available, and reinforces – with the political leadership – a sense of commitment. Delivering on earlier renewable energy targets further reinforces government credibility with the sector. Also important is the policy framing of renewable energy, which is seen as central to Scotland’s national economic and environmental future; an emphasis on green jobs and growth from renewables for home consumption and in providing an international competitive advantage. Scottish Government opposition to new nuclear may have helped to focus attention on renewables, but the emphasis on renewable energy is part of a wider energy agenda which also embraces conventional thermal electricity with carbon-capture and storage.

The simplest comparative comment to make is that one cannot find the same level of elite coherence around renewable energy in other governmental arenas. Statements of political support for renewable energy are plentiful, but either serious policy attention was slower to emerge (in

Wales and Northern Ireland), or renewables spent periods associated predominantly with environmental goals (as in Wales), or lacks an institutional framework that can give a full integrated expression of the benefits of renewables (in Northern Ireland). Consistent cross-party support is also hard to find: most spectacularly in the case of widespread Conservative MP opposition to on-shore wind (mainly) in England, and even where there is strong consensus in favour of renewables, the lack of a clear champion to drive the agenda may be a limiting factor (as in Northern Ireland).

Although landscape and ecological protection is relevant to renewable energy development across the UK, with onshore wind and major new grid projects attracting public opposition, amenity and landscape groups have found it harder to exercise influence in Scotland than in Wales or England: partly because they are less well resourced, but also because of the difficulties of challenging a sustained, national economic mission around energy development which enjoys consistent high-level support.

### *Market support*

Systems of market support have been an essential ingredient for boosting the development of renewable energy technologies within network and market conditions that would otherwise advantage conventional power generation technologies. In the UK, such systems are designed in Westminster, and have operated more or less consistently across the UK, with broadly common effects in England, Northern Ireland, Scotland and Wales. Thus, the problems of the Non-Fossil Fuel Obligation resulted in little new renewable energy capacity anywhere in the UK. The switch to the Renewables Obligation (launched in 2002, 2005 in Northern Ireland) stimulated an upturn in renewable energy investment – predominantly on-shore then offshore wind – observable in all parts of the country. The RO set electricity suppliers an obligation to achieve increasing targets of renewable energy, and suppliers suffered significant financial penalties for every unit of energy they failed to supply towards their target. The Renewables Obligation (RO) was formally broken up into separate mechanisms for England and Wales, Scotland and Northern Ireland. However, the 'Renewables Obligation Certificates' (ROCs) which are issued to renewable generators in respect of production of units of electricity can be transferred between the different territorial schemes making the RO operate, for practical purposes, as a single market.

So, although the Northern Ireland Executive and Scottish Government have full and operational powers respectively over financial support, any use of these powers may be less relevant to the overall volumes of renewable energy achieved in these countries. Each has benefited from being part of a larger, common, UK-wide pool of financial support. Thus Scotland's rapid development of on-shore wind has been paid for by UK (mostly therefore English) consumers. Northern Ireland has chosen to be part of the UK-wide system for these reasons, too: in isolation, or in collaboration with the Republic of Ireland, there would be less money available.

The Scottish Government has led the way within the UK in using its operational powers to set differential ROC levels to give extra help to emergent technologies in wave and tidal stream power, a move widely felt to have contributed to the growth of commercialisation and testing facilities in Scotland compared to other parts of the UK. In Northern Ireland the NIRO has a special banding for small-scale renewables (<500kW) and, more recently, farm-scale anaerobic digestion.

The most significant policy development currently on the horizon is Electricity Market Reform (EMR), a process to create a new system of market support, driven by Westminster. This will be

more centralised in its operation than the Renewables Obligation, as contracts for difference will be drawn up for the UK as a whole, and there is widespread concern both that this is designed essentially to support new nuclear development and will work against new renewable energy capacity, especially new, smaller entrants. Given its renewable energy ambitions, the Scottish Government was initially very critical of the proposals, but did not sustain its opposition. That it did not do so may reveal the limitations of its bargaining position in the absence of full powers in this area, and the fact Scotland's energy ambitions embraces large-scale development in technologies other than renewables

That the rapid expansion of renewable energy in Scotland is recognised by some in Westminster as central to the overall UK decarbonisation goals may have secured the Scottish Government a sympathetic ear. The Scottish Government has succeeded in gaining concessions from Westminster including being paid £103 million in funds in a one-off settlement of a dispute about disbursement of revenues gained from the earlier NFFO mechanism, the acceptance of higher ROC payments for wave and tidal stream technologies, and a settlement for transmission charges that will make it relatively cheaper than before to transmit renewable energy supplies from Scotland to other parts of the UK.

Northern Ireland has also agreed to join the EMR while retaining the right to negotiate a different strike rate to reflect local conditions, but in effect loses much of the autonomy it could have over its own market support initiatives or foster greater links on this issue with the Irish Republic.

In addition to the commentary above, it should be noted that Feed-in Tariffs for smaller scale renewables (less than 5MW capacity) are operated in a consistent way across the England, Scotland and Wales, in a process managed by Ofgem.

### *Planning and consents*

The processes of determining planning and other consents for major new electricity generation infrastructure is an important process shaping how much renewable energy potential gets translated into actual output, and how quickly. Planning policy is also important in determining the spatial distribution of renewables and ensuring it maximises local conditions such as wind resource and protection of sensitive habitats and landscapes. Planning is also a sphere in which almost all of the relevant powers are devolved, allowing a four-way comparison between England, Northern Ireland, Scotland and Wales.

If approval rates is the main benchmark of 'success', then the planning and consenting system for renewable energy in Northern Ireland is the most successful in the UK, with an approval rate of all renewable energy applications being nearly 90% in recent years. This reflects conditions that are not readily replicable elsewhere. Centralisation of planning is one factor - all planning applications for renewable energy in Northern Ireland are determined by the Department of the Environment - but also the main planning guidance for renewables (PPS18) takes a more liberal criteria-based approach than seen elsewhere, while political involvement and local objection are generally low.

The planning regime in Scotland is viewed positively by renewable energy interests, but changes made since devolution are better characterised as evolution than revolution. The Scottish Government has continued to operate Section 36 (generation over 50MW) and Section 37 (grid) consenting regimes for major energy projects, rather than replacing them with new procedures as has happened for England and Wales under the 2008 Planning Act and 2011 Localism Act. While

the latter are regarded as 'streamlined', evidence that these procedures are actually swifter than Section 36 is far from clear. Interviewees felt that the Section 36 process allowed more helpful interaction between consenting bodies, developers and stakeholders than the more 'arms length' 2008 Act process.

Other key ingredients in the positive perception of Scottish renewable energy planning are the willingness of the government to work actively with local government, to challenge restrictive local planning approaches, and the identification of nationally important infrastructure projects in the National Planning Framework.

The most significant planning policy innovation arising from devolution is in Wales, where in 2005 the Welsh Government instigated a national zoning framework to give a spatial steer and supportive policy context for large-scale on-shore wind energy development in seven demarcated areas of upland Wales. The resulting spatial concentration of major windfarm applications, especially in mid-Wales, and especially the proposed new grid connections, have generated significant and determined public protest. Although the Welsh Government has stuck by their spatial guidance, their reactions to this protest (by capping wind energy generation capacity within the zone), and the fact that many consents for the wind farms will be issued by Westminster not Cardiff (because they are more than 50MW), has made it difficult for the Welsh Government to project the same credibility with the industry as the Scottish Government. Although successive Welsh Governments have pressed Westminster to be given more control over planning consents for major energy infrastructure, they have repeatedly been rebuffed; doubts that the Welsh Government would be as likely to consent as much on-shore wind capacity as Westminster is a factor here.

That said, the volume of investor interest triggered by the Welsh Government's spatial zoning framework, totalling more than 2000MW of potential installed capacity, exceeds anything achieved in comparable regions of England, where the last decade saw a more tepid commitment to regional-scale planning come to an end in 2010 with abolition of the Regional Development Agencies.

The other main conclusion on planning is that there is remarkable convergence across the devolved governments that effective decision making for energy – along with other infrastructure – needs centralised, streamlined procedures (in effect, we are seeing 'regional centralism'). This has implications for public engagement in sustainable energy transition, which could ultimately come to define the upper limit for development of particular renewable energy technologies.

### *Steering the grid*

Electricity distribution and transmission networks are widely acknowledged to be a critical factor in shaping the scope for renewable energy development, but our main conclusion is that devolved governments (and government generally) have found it difficult to steer grid development in directions more conducive to renewables. This is because:

- of the massive inherited infrastructures of previous and current energy pathways;
- privatisation of the electricity industry placed much regulation in the hands of arms-length bodies, operating on a Britain-wide basis or, as in Northern Ireland, being charged to give greater attention to consumer prices than production goals;

- grid development is largely market-led i.e. new grid capacity projects only begin solidly to emerge once generation projects are coming forward;
- high voltage, terrestrial grid lines of any length almost invariably attract significant opposition because of environmental concerns.

Capacity improvement projects linked to renewable energy expansion are coming forward in Northern Ireland (the North-South interconnector), Scotland (Beaulieu-Denny) and Wales (the mid-Wales interconnectors). Each was deeply conflictual, and there is little sign that any of the devolved governments possess a magic bullet which will ease this process. Nor has Westminster: until a major grid proposal passes through the whole of the 2008/2011 Act processes for determining major infrastructure, it would be premature to laud these reforms as an overall improvement.

For reasons we have already explained, a combination of widely-based political commitment, national strategies and the possession of relevant powers enabled the Scottish Government to sustain confidence that the Beaulieu-Denny would be realised, despite vociferous protest. This is not a message that the Welsh Government has been able to convey so convincingly about the mid-Wales connectors. Northern Ireland faces specific challenges in coordinating consents for key grid investment in a cross-border context.

The devolved governments also engage over strategic grid management debates at a UK level. The Scottish Government had long argued for reforms to transmission charges which would enable Scottish renewable generators to pay lower rates for sending their power south to England. In 2012, Ofgem announced proposals which partly met their demands.

## **5      *The view offshore***

For the first decade of the 21<sup>st</sup> century, the uneven development of renewable energy around the UK was largely a story of the uneven development of on-shore, which faces a particular set of economic, technological and social conditions. However, a different perspective on progress with renewable energy, and the effects of devolved government, can be obtained by looking at marine renewables: offshore wind and more emergent technologies like wave power and tidal stream.

The two key policy dimensions in marine renewables echo those of other technologies: one is planning consent and the other is financing. Planning is largely devolved, at least to Northern Ireland and Scotland, while financing is largely reserved to Westminster. Key movers in orchestrating the expansion of offshore wind – the most readily available marine technology – have been the UK government (DECC) and the Crown Estate, which organises the leasing of areas of the sea to wind developers. In English waters, the main player in the consenting process to date has been DECC, with the UK government also central in upping the level of support for offshore wind (to two ROCs/MW). To date, only 'Round 1' and 'Round 2' projects have been implemented, delivering some 2700MWe of offshore wind capacity by the end of 2012, with Round 3 projects further back in the development pipeline.

The Governments in Scotland and Northern Ireland have both been supportive of offshore wind development, and additional leasing tranches in the territorial waters of each government have been organised by The Crown Estate. Northern Ireland may well have started earlier were it not for

jurisdictional problems with the Republic of Ireland over who owned the sea bed. With these constraints resolved, the leasing of 800 MW of offshore wind and tidal projects was announced as recently as November 2012. The Scottish Government has taken steps to create a 'one stop shop' consenting agency for marine projects - a more integrated set of arrangements than can readily be achieved for England or Wales - and channelled resources into port developments to support offshore wind.

What is less clear is whether these actions by Northern Ireland and Scotland will change the general pattern of offshore wind development in the near future, which is significantly shaped by the economics and, to some extent, the locational politics of siting. To date, most onshore wind capacity is located in the English North Sea and Liverpool Bay (bridging England and Wales), where the shallow seas have delivered lower development costs, while the fact that these areas have already been 'industrialised' by oil and gas, or are surrounded by coastal communities facing economic problems and glad of the jobs, has helped to quell social opposition. The Scottish and Northern Irish leasing tranches, like Round 3, are further away from installation, for which the prospects of coming forward are also subject to the uncertain level of price support available after Electricity Market Reform.

If progress with offshore wind, to date, has been dominated by Westminster, the promotion of wave and tidal stream power has been given much greater attention by the devolved governments (and, until their abolition, English regional development bodies). As these technologies are at an earlier stage of development, the policy tools are rather different: discretionary economic development spending and efforts to shape policy agendas. The Scottish Government in particular, as noted above, led the UK in channelling increased levels of ROC support to these technologies, and has offered financial support in various forms. It has provided the biggest share of funding for the European Marine Energy Centre (EMEC), based in the Orkneys, which tests and evaluates marine renewable technologies, and issued leases for several commercial sized schemes in its Pentland Firth marine renewable development zone. Demonstration facilities are also in place around the coast of Northern Ireland (in Strangford Lough) and Wales (in Ramsey Sound). The Scottish Government (and Northern Ireland Executive) have also been pro-active in raising the profile of marine renewables in the European Union.

## **6 Promoting social engagement in renewable energy**

To what extent has devolution brought with it moves towards wider public engagement in renewable energy development, either as citizens in the political sphere, or as the owners and developers of renewable energy?

Although the central product of devolution has been the creation of new tiers of elected representatives, electorally accountable to specific geographic and national communities, there is little sign that the devolved governments have actively sought to widen public engagement in energy decision-making. Indeed, if one regards the planning system as the main set of opportunity structures by which public get engaged in decision-making, then the governments in Wales and Scotland broadly share the emerging Westminster convention that renewable energy constitutes major/nationally important infrastructure, for which consenting regimes should be centralised and streamlined. In Northern Ireland the central government has retained control of consents since the 1970s, and will continue to do so as the Executive proposes to adopt proposals similar to those

used in Scotland to determine a hierarchy of decision procedures, once planning is transferred to local authorities in the next two years.

The only (partial) exception to this pattern is that the Welsh and Scottish Governments have shown a greater inclination to use spatialised policies for on-shore energy and other infrastructure than Westminster, in turn giving future national development scenarios greater tangibility and attracting more responses.

Successive governments in Westminster, Scotland and Wales have given support to the development and ownership of renewable energy by communities, and have backed this support with grant schemes and advice. Wales has used European money to support social enterprises in developing sustainable energy projects; the Scottish Government has grants too, plus a new target of obtaining 500MW of community renewables by 2020. The Department of Enterprise, Trade and Investment in Northern Ireland has recently tendered for a project to investigate the potential for community energy, but tends to be behind on this issue.

While one can see elements of institutional innovation across the governments of the UK, certain continuities stand out more clearly. Nowhere has community renewables been seen as more than a modest (if highly positive) addition to energy strategies which continue to rely mostly on large, international investors developing mostly large-scale generation schemes. Community renewables have been framed by governments across the UK as a means of improving the social acceptability of renewable energy development (by spreading the benefits) and/or one means of delivering social and economic development to (mostly rural) areas. At the same time, key features of the current broad systems of energy provision, such as market support, including Electricity Market Reform and the availability of finance, tend to favour large, existing businesses.

Devolution has not of itself spawned new voices campaigning for alternative, more community-centred, decentralised patterns of energy development or challenging conventional policy; of the political parties, Plaid Cymru has presented alternative visions for a more indigenously-based Welsh economy, including energy.

## **7 Conclusions**

We would not conclude that devolution – actions and activities undertaken by the devolved governments – are necessarily the most important factors shaping the development of renewable energy in the UK. This is because devolution is still a relatively new dimension of the system for energy provision in the UK. Many of the conditions affecting this sector – the market arrangements, the grid, key incumbent actors and business structures, the broad policy philosophy – were established prior to and during electricity privatisation. Moreover, decisions affecting key drivers for renewable energy investment are still made mainly in Westminster and shape decisions across the UK. In particular budget discipline, exercised through the Treasury on market support, has a powerful effect.

Nevertheless, the highly uneven geographical and technological distribution of renewable energy development across the devolved governments suggests that there is a phenomenon to explain, and that devolution is a factor. In particular, for much of the post-1998 period, rates of renewable energy development in Scotland have been greater than in England; so too, on some measures, are outcomes in Wales and Northern Ireland.

Our analysis shows that the powers allocated to governments in Northern Ireland, Scotland and Wales are clearly constitutive of the potential for action, and powers have wider effects on government credibility and in terms of legitimising resources or negotiating positions. But equally simply possessing 'powers' in the narrow legal or administrative sense may be of limited relevance without a disposition, capacity or will to deploy them in an effective manner for renewable energy. In short, 'powers' is an insufficient explanation. Scotland has achieved more, to date, with fewer powers than Northern Ireland and, for some technologies, more than England, to which many of the full powers of Westminster government directly apply.

We identify a number of areas in which devolved governments have been responsible for actions, policy innovations or styles of working which have proven helpful to the delivery of renewable energy in the UK:

- The Scottish Government has led in using its powers to differentiate ROC levels to give greater support to wave and tidal power, while Northern Ireland has used this to facilitate small-scale renewables and anaerobic digestion;
- The Scottish Government has devoted much greater resources relative to its population on direct funding of facilities and research and demonstration for offshore wind and wave and tidal stream energy technologies than is being done in the rest of the UK.
- The Scottish Government's control over major energy generation and grid consents is widely seen as advantageous as a means of exercising closer control over delivery, but its decision not to follow Westminster in creating new consent procedures may have had some short-term advantages. Centralised procedures also underpin high consent rates for wind in Northern Ireland.
- Although the current state of implementation seems conflictual and tortuous, it is defensible to say that the Welsh Government's use of strategic spatial zoning has helped pull in a larger volume of on-shore wind development interest than could be expected in a comparable region of England.
- The delivery of new grid infrastructure, to enable the timely exploitation of renewable resources in remote locations, remains problematic across the UK. The role of devolved governments is mostly in the realm of 'softer' actions, such as signifying commitment to such investments, or undertaking a mediating role between stakeholders within route corridors.

However, to understand why the above steps have been taken, and why they have exerted particular effects, we need to look at powers in the light of a wider set of institutional and political factors, which have shaped processes of policy formulation and implementation.

- Time is itself a factor. Among the devolved governments, political commitment to large-scale renewable energy development is longest standing in Scotland, being evident in the 1999 elections, allowing debates about delivery to develop sooner than in Northern Ireland and Wales.
- A significant dimension of this is the centrality of energy issues to the Scottish National Party and its independence agenda, but so too is cross-party support, the galvanising of a wider but still compact policy network including major energy businesses, and a persistent framing of renewable energy as a national economic agenda.

- The availability of larger, relatively less contested sites for on-shore wind in Scotland has also been a factor, and also meant more projects went through central consenting procedures.
- From our perspective, this cohesion of elite interests – across the new tier of elected representatives, in devolved government and business - around renewable energy expansion – helps explain why the Scottish Government feels legitimised to use the powers available, and empowered actively to facilitate implementation of potentially controversial projects (such as grid and on-shore wind). As it has achieved successful growth in the sector, this too added to an upward spiral of credibility among key business interests, and added weight to its position in dialogue with Westminster.

However, despite the contributions from the devolved governments, there are commentators that would doubt whether the EU target of obtaining 15% of energy (and by implication, 30% of electricity demand) by renewable energy sources is going to be achieved. Previous comparative analysts have noted the slower rate of renewable energy development in the UK compared to Europe's renewable energy leaders, Germany and Denmark, and the higher cost, and attributed this to problematic features of the UK mode of renewable energy development, which is characterised by dominance of a small number of large energy companies, many of whom have interests in an array of conventional energy technologies, with financial support and other arrangements that are expensive, and difficult for new entrants to access. The resulting development patterns – a tendency towards very large schemes, requiring big grid, for which many of the economic beneficiaries are distant from development – tends to exacerbate social disquiet, and slow delivery.

This perspective raises a different question about the effects of devolution: not to ask what have the devolved government's done for renewable energy within their own territory, but to what extent have they used their access to policy formulation processes in Westminster to challenge the prevailing UK energy pathway? The evidence of our research suggests that the devolved governments have not done so. Indeed, with the exception of Scottish opposition to new nuclear, both Scottish and Welsh Governments are broadly comfortable with an energy development pathway that consists of large developments, international investment and conventional generation technologies. Indeed, our research suggests that energy generally – and renewable energy in particular – is not a subject on which there is fundamental disagreement about policy direction between London, Cardiff, Edinburgh/Glasgow<sup>1</sup> or Belfast.

Thus an alternative reading of the effects of devolution on renewable energy is that Scotland's experience shows us the conditions that are required for the UK renewable energy pathway to work successfully: significant elite cohesion around the agenda and access to a wider pool of supportive resources. That there is less sign of elite cohesion around the expansion of renewables in Westminster, Cardiff or Belfast qualifies the scope for any easy 'borrowing' of policy lessons from Scotland. However, given the asymmetric and uneven distribution of powers attendant on devolution, Scotland may find it hard to fully insulate its renewable energy ambitions from any outfall from conflict over the direction of energy policy in Westminster.

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<sup>1</sup> Much of the Scottish Government energy team is based in Glasgow.