

To: Committee Members
From: Sohui Yim, Assistant Committee Clerk
Date: 20 June 2011
Subject: Onshore Renewable Electricity Action Plan and Associated Strategic Environmental Assessment

Background

1. The Department has submitted a written briefing on the Onshore Renewable Electricity Action Plan (OREAP). The Plan is not yet complete; it is estimated that the draft plan will be completed in July 2011, after which it will go to public consultation. It is envisaged that the OREAP will contribute to the 40% renewable electricity target by 2020 (in the Strategic Energy Framework).
2. **Members may wish to note that DETI Energy Division will be providing an oral briefing to the Committee at this week's meeting – members may wish to question officials on the details of the Plan.**
3. The OREAP's objective is to maximise the amount of renewable electricity generated from onshore renewables – it only relates to onshore (or terrestrial) renewable electricity, not offshore. However the Plan considers the impact of both onshore and offshore renewable energy development on the onshore transmission and distribution network. The offshore renewable energy strategic action plan is a separate document that will examine offshore renewable electricity.
4. Members should note that AONB (mentioned in the environmental assessment section) is "area of outstanding natural beauty."

Suggested line of questions

5. The Department acknowledges that most of the 40% renewable electricity target will be met by wind, as indicated by the energy market. In the previous ETI Committee's renewable energy inquiry, it was recommended that, "*The 40% target for electricity consumption from renewable sources by 2020 should include specific stretching targets for electricity from sources other than wind and/or stretching targets for non-wind sources by 2025 and beyond.*" Members may wish to ask what the Department is doing to encourage other technologies.
6. In relation to grid infrastructure, the Department states that although the OREAP will reflect the need for grid strengthening, it is for the electricity network owner, in conjunction with the Utility Regulator, to take forward detailed grid development programmes. Members may also wish to ask if there is a case to be made for increased collaboration between governmental bodies and relevant organisations to ensure the smooth process of grid development.
7. The Department mentions a regulatory impact assessment on the OREAP which will take into consideration the cost to consumers of increasing the level of onshore renewable electricity. Given that changes to the current approach to grid ownership, operation and management may change due to the EU 3rd Energy Package (and there are conflicting views from both SONI and NIE), Members may wish to ask Departmental officials if the OREAP takes into account any potential changes to overall grid policy and investment from the 3rd Energy Package.

WRITTEN BRIEFING PAPER TO THE ENTERPRISE, TRADE AND INVESTMENT COMMITTEE ONSHORE RENEWABLE ELECTRICITY ACTION PLAN AND ASSOCIATED STRATEGIC ENVIRONMENTAL ASSESSMENT

Introduction

1. This briefing provides an update on progress to date and sets out for the ETI Committee's information the context and background to the Onshore Renewable Electricity Action Plan (OREAP) which will examine the potential role of onshore renewable electricity technologies in contributing to the 40% renewable electricity target by 2020.

Onshore Renewable Electricity Action Plan

2. A key target for Northern Ireland, arising from the Strategic Energy Framework (SEF), is to increase the level of electricity consumption from renewable sources to 40% by 2020. To achieve this target will require more renewable sources to be connected to the network amounting to an estimated total of 1600-1800MW of renewable generation installed capacity, depending on the technology mix.
3. The aim of the draft OREAP is to maximise the amount of renewable electricity generated from on shore renewable sources in order to enhance diversity and security of supply, reduce carbon emissions, contribute to the 40% renewable electricity target by 2020 and beyond and develop business and employment opportunities for Northern Ireland companies. The OREAP relates only to onshore or terrestrial renewable electricity, not offshore or traditional generation, but it considers the impact of both onshore and offshore renewable energy development on the onshore transmission and distribution network.

On Shore Renewable Generation Scenarios

4. The Department is technology neutral in terms of how the 40% target will be delivered and it will be for the market, i.e. developers and investors, to bring forward a diverse mix of renewable technologies to the energy mix going forward. That said however, the fact cannot be ignored that given the current level of on shore wind planning applications submitted, it seems likely that the market will bring forward an energy mix, at least in the period up to 2020, where onshore wind will make up the majority of the contribution. This means that the OREAP follows a "business as usual" approach by continuing the existing market-led approach to development. Planning policy, consultations, environmental constraints, market conditions and political decisions will all have an influence on the pace of development in the period up to 2020 and beyond.
5. This approach means that there are a number of uncertainties. To try to address this, the OREAP will consider different high, medium and low generation scenarios all of which have been subject to environmental assessment through the SEA process. The generation scenarios are largely

based on research commissioned by DETI as part of the evidence gathered to set the SEF targets. The figures have been updated to reflect current proposed levels of development in Northern Ireland and are based on information available at that time. In addition, a “do minimum” scenario, representing only those developments which are existing or consented has been developed and assessed.

6. The scenarios that have been environmentally assessed are as follows:

	Do Minimum	Low	Medium	High
Onshore Wind	593.1 MW	800 MW	1000 MW	1200 MW
Biomass	36.5 MW	50 MW	150 MW	300 MW
Other	33.5 MW	45 MW	110 MW	173 MW

Generation technologies included in this Action Plan are onshore wind, biomass and ‘other’ which includes hydro, anaerobic digestion, landfill gas, sewage gas, solar PV, small scale wind and geothermal power generation.

Grid Infrastructure

7. The Department recognises that increased levels of renewable electricity are likely to require some level of grid strengthening, especially in the west of the province where the wind resource is particularly plentiful and there is a demand evidenced by the number of applications in planning service. The OREAP will reflect this need for grid strengthening but it will be for the electricity network owner, in conjunction with the Utility Regulator, to take forward detailed grid development programmes. NIE is currently developing a Renewables Integration Development Programme (RIDP) which will be reviewed as part of the Utility Regulator’s NIE Transmission and Distribution Price Control 2012-2017.

Offshore Renewable Energy

8. Offshore generation has already been examined in detail in the Offshore Renewable Energy Strategic Action Plan which proposes a target of at least 600MW offshore wind energy and 300 MW tidal energy by 2020. This OREAP recognises the need for suitable grid connections for this offshore energy to come onto the network and will therefore consider the coastal constraints in bringing this onto the grid onshore. It will be for the electricity network owner, in conjunction with the Utility Regulator, to develop the grid to accommodate this offshore renewable energy in due course. The Department understands that NIE will consider this as part of their Network 25 Programme which is due to be published later this year.

Strategic Environmental Assessment

9. The SEA process ensures that environmental issues are addressed in major plans at an early stage to minimize any potential adverse impact on the environment. The SEA will identify how cumulative onshore renewable energy developments could affect the environment of Northern Ireland and will also make reference to the in-combination effects of future generation with the potential associated grid upgrades.
10. The SEA is overseen by a DETI led Project Steering Group (PSG) comprising key organisations and NI Government Departments, including the Northern Ireland Environment Agency, the Planning Service, the Department for Regional Development, the Department of Agriculture and Rural Development, the Utility Regulator, Northern Ireland Electricity, System Operator Northern Ireland and the Northern Ireland Renewables Industry Group.
11. The SEA process is divided into five distinct stages, as follows:
 - Stage A – setting the context, establishing the baseline defining the scope;
 - Stage B – developing and refining strategic alternatives and assessing effects;
 - Stage C – preparing the Environmental Report;
 - Stage D – Consulting on the Environmental Report; and
 - Stage E - Monitoring Implementation of the Plan.

Stage A and B are now complete and the completed Environmental Report is in its final stages. The Environmental Report will outline the results of the environmental assessment and will inform the content of the draft OREAP. The findings of the environmental assessment will be incorporated into the draft OREAP which will be subject to public consultation along with the Environmental Report.

Emerging findings from the Environmental Assessment

12. Initial findings from the environmental assessment are heavily focused on wind as the levels of consented and operational wind account for some 767MW (almost half of the 40% target). The effects for other technologies are very site specific and can really only be dealt with at project level, and in any case have minimal influence in achieving the scenarios.
13. The environmental assessment, not surprisingly, identifies that as development increases there is an increased potential for significant effects in respect to landscape character and visual amenity. While continuing with the current market led pattern of development for on shore wind (i.e. clustering wind in the West and North West of Northern Ireland) presents an increased risk of significant cumulative effects due to high levels of development, the effects of introducing wind farms into completely undeveloped/natural landscapes where

there is currently no wind farm development could potentially be more significant.

14. The assessment has also identified that in terms of strategic effect there is potential that development within or adjacent to AONBs could have a significant effect on the character, scenic beauty and overall intrinsic value of these sites. This could have an adverse effect on the recreational/tourism value of these areas. The assessment concluded that whilst there is potential for significant cumulative effects on some of the AONBs in the West of Northern Ireland, on the basis that there are already developments in these areas, **the overall effects would be less significant than dispersing developments over a wider geographical area** and therefore increasing the potential risk for having cumulative effects on a larger number of AONBs.
15. The environmental report will consider and outline these likely significant effects in more detail and will recommend appropriate mitigation measures.

Grid Issues

16. Access to grid has been highlighted in the report as an issue, in that it is **likely that there would be better access to grid or reinforcements to support development in current areas rather than new areas**. The introduction of grid into new areas to support development could potentially have significant effects and could potentially limit the amount of development that could be taken forward in new areas.
17. However, as regards grid connections for offshore renewables, the assessment indicated that opportunities for grid connections are better off the north coast and off the east coast around Belfast. Connections off the Antrim Coast and around Mourne to the south are more technically and environmentally constrained, although with more detailed assessments at a project level it may be possible to identify appropriate connection routes or points.

Habitats Regulation Assessment

18. Alongside the SEA, it was necessary to consider the requirements of the EC Habitats Directive in the development of the OREAP. Article 6(3) of this directive requires that any plan or project which is not directly connected with or necessary to the management of a European site, but would be likely to have a significant effect on such a site, shall be subject to a "Habitats Regulation Assessment (HRA)" of its implications for the European site in view of the site's conservation objectives.
19. In light of this, a Habitats Regulation Assessment Screening exercise has been completed to determine if a full Habitats Regulation Assessment is required on the finalised OREAP. The Screening report concluded that a Habitats Regulation Assessment would be necessary in this instance. The screening report has now been formally submitted to the Northern Ireland Environment

Agency. Following this and the completion of the consultation on the OREAP a HRA will need to be carried out later in the year to fulfil the requirements of the Directive.

Regulatory Impact Assessment

20. It has become apparent through consultation and discussions with various stakeholders that the Department needs to consider socio-economic impacts as well as environmental concerns of increasing the amount of on shore renewables. The Department is consequently completing a Regulatory Impact Assessment (RIA) on the OREAP which will take into consideration the cost to consumer of increasing the level of onshore renewable electricity as well as impacts on tourism. The RIA will reflect the Utility Regulator's role in approving the cost of grid development plans through the Price Control Process whereby NIE is required to submit detailed cost requirements for approval. The cost of current and potential incentivisation for renewable electricity generation in Northern Ireland will also be considered. The RIA will be published for consultation along with the draft OREAP and the Environmental Report.

Timescales and next steps

21. It is anticipated that the draft OREAP will be completed in the next month once we have received the results of the environmental assessment, with the aim of issuing the draft OREAP, Environmental Report and Regulatory Impact Assessment for public consultation over the summer. We will ensure that copies of these documents are sent to the Committee, however this may be during the summer recess.
22. Following the 12 week consultation period the draft plan will be updated and the Habitats Regulation Assessment will be completed on the final plan. It is anticipated that the OREAP will be formally adopted by March 2012.

Recommendation

23. The Committee is invited to note the current status and next steps in relation to the OREAP.

DETI Energy Division
2nd June 2011.