

10th March 2011

**NIRIG Response to the Department of Energy and Climate Change
Consultation on Electricity Market Reform.**

The Northern Ireland Renewables Industry Group (NIRIG), a joint collaboration between the Irish Wind Energy Association and Renewable UK, welcomes the opportunity to comment on the Department of Energy and Climate Change (DECC) Consultation on Electricity Market Reform.

It is clear that renewable electricity generation in Northern Ireland is of significant importance, both regionally and more broadly within the UK. However it has been difficult for NIRIG to respond directly to the questions posed as they do not fundamentally apply to the Single Energy Market (SEM) within which Northern Ireland operates. It is important therefore that DECC considers the implications of these reforms within the broader UK context. NIRIG will be commenting on the following areas:

- 1. Northern Ireland Context**
- 2. Implications of Proposed Reform for the Northern Ireland Market**
- 3. Feed in Tariffs**
- 4. Supplier Obligation Requirement**
- 5. Implementation Issues**
- 6. Transition Arrangements**

1. Northern Ireland Context

The renewables industry in Northern Ireland impacts positively on economic competitiveness, makes a significant contribution towards the local economy, supports security of supply and contributes to the UK target of 15% of energy from renewable sources (EU Renewable Energy Directive). NIRIG would like to highlight these areas to provide DECC with a better understanding of the implications of the proposed changes on Northern Ireland. In terms of carbon reduction targets, Northern Ireland does not have access to nuclear power or CCS schemes and is

therefore heavily reliant on achieving renewable generation targets to meet its share of carbon reduction targets.

Economic Competitiveness

- NI has an abundance of unexploited indigenous renewable energy including wind, marine and others
- Published reports have demonstrated that significant renewable energy generation in Northern Ireland has the potential to reduce overall energy prices through the reduction in the reliance of imported fossil fuels
- Competitive electricity prices will help Northern Ireland business to compete effectively in a global economy

Local Economy

- A vibrant renewable electricity generation sector has made and will continue to make an important contribution to the Northern Ireland economy, assuming that the conditions exist for the continuing development of the industry
- In broad terms, as an example, the development of 1000MW of onshore wind will contribute up to £450m to the local economy as a direct result of the development and construction activity
- Operational wind farms continue to make significant contributions to the local economy through, for example, business rates, landowner payments and community funds, not to mention the jobs and expenditure due to ongoing operation and maintenance
- Development of renewable generation creates local jobs. Within the SEM, it is estimated that over 10,760 jobs will be attributable to the wind industry over the next 11 years with over 1,800 direct jobs to be created in 2020 alone.
- A successful and mature generation sector creates confidence among key manufacturing and service companies, providing their initial exposures to Northern Ireland and providing the seed corn for them to expand into broader activities such as manufacturing and assembly

Security of supply

- Northern Ireland imports in excess of 95% of the energy consumed in the province
- Northern Ireland is extremely dependent on oil and gas imports (disproportionate to rest of UK)
- A renewable generation sector of scale and diversity will greatly improve fuel security and reduce the sensitivity of the local energy market to gas, oil and coal prices

UK Renewable Energy Targets

- Northern Ireland has an enviable source of “raw” renewable energy which can be harnessed and exploited in a cost effective manner
- With adequate support, Northern Ireland can continue to increase its contribution to the overall UK renewable energy targets and will “punch above its weight”, reducing the requirement for England in particular to make such a large contribution relative to the scale of consumption in England. This is also important for Northern Ireland as it does not have access to nuclear power or CCS schemes.

2. Implications of Proposed Reform for the Northern Ireland Market

- It is clear that Northern Ireland and the market conditions therein have been ignored in the preparation of the proposals for market reform.
- The NIRO (and the RO) have been operating effectively for almost a decade and, within NI, have had the desired impact of significantly increasing the amount of renewable generation. Developers and investors are fully familiar with the NIRO and see little benefit in removing a policy which is stable and is achieving its desired outcomes.
- Significant analysis of any proposed reforms should be completed in the context of Northern Ireland generators operating in the SEM before any far reaching policy changes are made.

- Northern Ireland makes a much greater contribution to UK renewable energy targets than either its land mass or population would indicate. The RO supports this position as it allows Northern Ireland generators to transfer ROCs to the GB market. It is crucially important to the Northern Ireland industry that a mechanism which allows Northern Ireland generators to access the GB support mechanism is maintained. It is neither reasonable nor affordable for the Northern Ireland consumer to support a disproportionate contribution to the UK renewable energy targets.
- In general terms, it is very difficult for NIRIG to make assessments on the viability of the support mechanism proposals without much great clarity as to how the strike prices would be set e.g. what index mechanism might be used?
- NIRIG has mainly commented in relation to the proposals for long term contracts for low carbon generation; however a specific point with regard to capacity mechanism is relevant. NIRIG would welcome any mechanism which would incentivise the construction of rapid response generation such as OCGT as such plant would allow the system operator to dispatch variable renewable generation with more confidence. Such a support should be in the form of a targeted mechanism and should be appropriate to ensure it does not have a negative impact on other areas; i.e. relevant level and type of Ancillary Services payments to facilitate suitable generation to ensure such new plant is flexible and reliable in providing required Ancillary Services.

Current Market support

- Current energy policy in Northern Ireland should deliver in excess of the low carbon generation required to meet environmental targets. The Northern Ireland Strategic Energy Framework sets out ambitious but achievable targets which should facilitate the generation of at least 40% of the electricity consumption in Northern Ireland from renewable sources. Technical assessments such as the All Island Grid Study and the Facilitation of Renewables study have supported this target.

- It is accepted that, currently, Northern Ireland has an over reliance on gas fired generation. If however the local system is developed in the manner envisaged in the Strategic Energy Framework, it is believed that the diversity and therefore security of the supply will be much enhanced.

3. Feed-in Tariffs

- As indicated, any comments on the suitability or otherwise of any feed in tariff (FIT) support mechanisms need to be caveated with the assertion that detailed study is required of the impact on RE generation within the structures of the SEM. The SEM rules are governed by a SEM committee, on which Northern Ireland does not have a majority representation. It cannot be guaranteed therefore that mechanisms involving market rule changes could be delivered.
- NIRIG disagrees that the use of a Premium FIT mechanism would delay investment in low carbon generation. The Premium FIT is similar in payment terms to the existing RO and there is no evidence that the current system is delaying investment. Indeed it is other factors such as planning approval and grid infrastructure development which are delaying investment rather than the current support mechanism.
- Whilst a Fixed FIT would be unlikely to impact dispatch profiles for renewables generation which has priority dispatch, and much of which is intermittent, a Fixed FIT would require power to be purchased outside of the market. The SEM is a gross mandatory pool which requires power to be sold into the market, or through certain permitted intermediaries. It is not clear that a central buyer for NI renewable output would be a permitted intermediary. In addition a move to outside of market arrangements would be a reversal of UK market led policy for the last 2 decades.
- There does not appear to be any evidence that a Fixed FIT would remove the incentive for wind generators in Northern Ireland to dispatch energy efficiently. SEM is a centrally-dispatched market, so wind generators play no part whatsoever in dispatch decisions. Wind is exclusively treated as variable

price taker in the market at present and (it would be un-wise to choose any other treatment in the current market framework) so it is treated as priority dispatch as required by the RES Directive.

- It is believed that a CfD mechanism would make little difference regarding dispatch for wind farm operators. In Northern Ireland, wind generators receive the System Marginal Price from the SEM – it is unlikely (as indicated in the consultation paper) a CfD mechanism would impact the decisions made by wind farm operators as regards selling their output. It comes down to whether the operator participates directly in the market or through an intermediary. If the CfD mechanism incorporated supplier payments, then windfarms might want to structure themselves as supplier/generators and participate in both sides of the support payment. The devil is always in the detail of the proposed support mechanism. How would application of excessive loss factors or other constraint be compensated? Ideally payment would be based on metered output. However the market also pays for constrained off energy up to the firm access quantity, so it would be good to be compensated for constraint in the support mechanism too. This would be based on the generators need for a certain volume of money to make a viable investment, so metered volume only might not deliver this for a severely constrained generator. Because constraints can be fairly individual, using market data on constrained volumes would ensure independence and auditability of the data and would avoid any need for a more general increase in the level of support strike price. This approach would also recognise firm access limits and so avoid any charge that the support would pay out for generators who had no capacity right to export.
- A CfD mechanism would be a complex solution in a small market of Northern Ireland. This would put it at a relative disadvantage to the much larger GB market, and it would be less attractive to lenders and investors. The high renewables penetration targets in Ireland of 40% by 2020 are likely to mean significantly higher constraint levels with the possibility of curtailment, which would be a significant difference from GB arrangements. Market rules on compensation of constraints at high levels of renewable penetration are yet to

be agreed, but this would make a flat rate CfD across the UK very unlikely to work in Northern Ireland.

- Comments with regard to the relative affordability to consumers for each of the FIT mechanisms are irrelevant unless the options are modelled in the context of the SEM rather than just the GB market.
- The general preference from NIRIG is that Premium FIT is the preferred option insofar as it operates in a similar fashion to the RO and therefore investors are familiar and confident in the mechanism. Of the three options proposed (Fixed, CfD, Premium), it provides the most certainty as to the cost to the customer and leaves price volatility risk with the generator, where it currently sits.
- Recent history has indicated that developers are content to manage the risk associated with developing wind projects under the current regime
- DECC argues that linking the CfD to average prices will incentivise generators to optimise their outages in periods of low prices, reducing price spikes. For wind generators, availability of resource (wind) has a much bigger impact on operational decisions than market price e.g. operators are more likely to schedule maintenance in the summer months during periods of low wind speeds as the losses in terms of energy production are likely to be reduced.
- In general terms, any payment should be based on output rather than availability with one important exception. If the operator is constrained as a consequence of network or system operation reasons, a mechanism is required to support generation lost through no fault of the operator.
- NIRIG is concerned that, under the proposals for reform, the Premium Fit model is not linked to potential changes in carbon tax levels.

4. Supplier Obligation

- NIRIG is concerned by the lack of a supplier obligation within the current reform proposals.

- In general terms, the lack of a supplier obligation will have the net impact that renewable but variable generation such as wind will be less attractive to a supplier than other forms of low carbon generation. This will particularly impact on independent generators who do not have a supply business or a mixed portfolio of generation assets
- It is acknowledged that the lack of a supplier obligation is likely to have less impact in Northern Ireland in that generators are guaranteed a buyer for their electricity through the SEM assuming they are not constrained for system operation reasons

5. Implementation Issues

- NIRIG would not support the use of auctions or tenders to determine the level of support and believes that an evidence-base approach would provide the levels of support necessary to incentivise NI developers to continue to develop and construct RE projects.
- Experience of the NFFO mechanism indicated that the auctions did not deliver the desired outcomes in terms of increased renewable generation. Experiences were similar in ROI where the AER process was also unsuccessful. There is little evidence to suggest that any auction or tender mechanism would achieve significantly different results in this context.
- It is generally accepted that different generation technologies are at different stages in the development cycle and some require more support than others. It is therefore reasonable that any new support mechanism should be technology specific as is currently the case with the RO. This is particularly important for Northern Ireland where, given the resource, the marine renewable sector is intending to play a proportionately more significant role in meeting targets than the rest of the UK.
- An evidence-based assessment of the additional costs and risks associated with individual technologies should be completed; FITs could then be established on a technology basis

- NIRIG believes that a Premium FIT should be used with a different level of FIT set according to each technology

6. Transition Arrangements

- Uncertainty of any nature will lead to project delays. It is imperative that any new support mechanism is analysed and implemented as quickly as possible. This is especially important in the context of NI where the devolved responsibility will introduce additional delays to the introduction of a complementary support mechanism in Northern Ireland.
- In the context of transition to any new support mechanism, NIRIG suggests that, up to 2017, a choice should be retained as to whether support should be sought under the existing RO or the new scheme. This will allow individual developers to assess projects under each regime and decide which is the more appropriate.
- In order to ensure adequate support for existing projects under the RO, NIRIG suggests that, in the context of Northern Ireland, the use of Calculation B would be acceptable as it replicates, in general, the mechanism currently in place.

Conclusions

Consideration of Northern Ireland and the market conditions therein has been omitted in the preparation of the proposals for market reform. These proposals, by their nature, have an impact on the whole of the UK, not simply GB. We recognise that energy policy is a devolved matter, however given the importance of the GB market to the NIRO, any significant change to the GB market will have a major impact on the energy policies in NI.

The general preference from NIRIG is that Premium FIT is the preferred option insofar as it operates in a similar fashion to the RO and therefore investors are familiar and confident in the mechanism.

NIRIG would not support the use of auctions or tenders to determine the level of support and believes that an evidence-base approach would provide the levels of support necessary to incentivise Northern Ireland developers to continue to develop and construct Renewable Energy projects.

NIRIG strongly recommends that supplier obligation be retained to continue the support of renewables in the proposed reform.

Significant analysis of any proposed reforms should be completed in the context of Northern Ireland generators operating in the All Island Single Electricity Market (SEM) before any far reaching policy changes are made.

NIRIG would welcome the opportunity to continue to work with DECC and DETI to ensure that the industry concerns in Northern Ireland are best addressed.

Appendix A

Consultation Questions – NIRIG responses

Feed-in Tariffs

3. Do you agree with the Government's assessment of the pros and cons of each of the models of feed-in tariff (FIT)

We do not agree with the Government's assessment on the following items:

- Risk*: NIRIG do not believe that a premium FIT reduces policy risk for wind generators relative to the baseline under the NIRO/RO.
- Liquidity, and supplier obligation*: NIRIG believes that removing supplier obligation for the renewable sector increases the risk in the market. In the absence of a liquid electricity market, the present incentive under the NIRO/RO strengthens the ability of independent generators to secure a route to market for their electricity generation.
- Whilst a Fixed FIT would be unlikely to impact dispatch profiles for renewables generation which has priority dispatch, and much of which is intermittent, a Fixed FIT would require power to be purchased outside of the market. The SEM is a gross mandatory pool which requires power to be sold into the market, or through certain permitted intermediaries. It is not clear that a central buyer for NI renewable output would be a permitted intermediary. In addition a move to outside of market arrangements would be a reversal of UK market led policy for the last 2 decades.

4. Do you agree with the Government's preferred policy of introducing a contract for difference based feed-in tariff (FIT with CfD)?

NIRIG is unable to support this preference, as there is no analysis of the impact of FiT with CfD on renewable energy generation within the structures of the SEM. The general preference from NIRIG is that of Premium FIT as it operates in a similar fashion to the NI/RORO and therefore investors are familiar and confident in the mechanism. Of the three options proposed (Fixed, CfD, Premium), it transfers least risk to the Government which should mean it has the potential to be the least expensive option for the taxpayer when markets are volatile.

7. Do you agree with the Government's assessment of the impact of the different models of FITs on the cost of capital for low-carbon generators?

- o NIRIG disagrees that the use of a Premium FIT mechanism would delay investment in low carbon generation. The Premium FIT is similar in payment terms to the existing RO and there is no evidence that the current system is delaying investment. Indeed it is other factors such as planning approval and grid infrastructure development which are delaying investment rather than the current support mechanism.
- o There does not appear to be any evidence that a Fixed FIT would remove the incentive for wind generators in Northern Ireland to dispatch energy efficiently. SEM is a centrally-dispatched market, so wind generators play no part whatsoever in dispatch decisions. Wind is exclusively treated as variable price taker in the market at present and (it would be un-wise to choose any other treatment in the current market framework) so it is treated as priority dispatch as required by the RES Directive.
- o It is believed that a CfD mechanism would make little difference regarding dispatch for wind farm operators. In Northern Ireland, wind generators receive the System Marginal Price from the SEM – it is unlikely (as indicated in the consultation paper) a CfD mechanism would impact the decisions made by wind farm operators as regards selling their output. It comes down to whether the operator participates directly in the market or through an intermediary. If the CfD mechanism incorporated supplier payments, then windfarms might want to structure themselves as supplier/generators and participate in both sides of the support payment. The devil is always in the detail of the proposed support mechanism. How would application of excessive loss factors or other constraint be compensated? Ideally payment would be based on metered output. However the market also pays for constrained off energy up to the firm access quantity, so it would be good to be compensated for constraint in the support mechanism too. This would be based on the generators need for a certain volume of money to make a viable investment, so metered volume only might not deliver this for a severely

constrained generator. Because constraints can be fairly individual, using market data on constrained volumes would ensure independence and auditability of the data and would avoid any need for a more general increase in the level of support strike price. This approach would also recognise firm access limits and so avoid any charge that the support would pay out for generators who had no capacity right to export.

10. How important do you think greater liquidity in the wholesale market is to the effective operation of the FIT with CfD model? What reference price or index should be used?

In the absence of a liquid electricity market, the present incentive under the NIRO/RO strengthens the ability of independent generators to secure a route to market for their electricity generation.

Options for Market Efficiency and Security of Supply

19. Do you agree with our assessment of the pros and cons of introducing a capacity mechanism?

No, NIRIG believes that the assessment is incomplete as it does not consider the potentially negative impact of the capacity mechanism on Northern Ireland – part of the UK.

30. What do you think are the main implementation risks for the Government's preferred package? Are these risks different for the other packages being considered?

- It is generally accepted that different generation technologies are at different stages in the development cycle and some require more support than others. It is therefore reasonable that any new support mechanism should be technology specific as is currently the case with the RO. This is particularly important for Northern Ireland where, given the resource, the marine renewable sector is intending to play a proportionately more significant role in meeting targets than the rest of the UK.
- An evidence-based assessment of the additional costs and risks associated with individual technologies should be completed; FITs could then be established on a technology basis

- NIRIG believes that a Premium FIT should be used with a different level of FIT set according to each technology
- A CfD mechanism would be a complex solution in a small market of Northern Ireland. This would put it at a relative disadvantage to the much larger GB market, and it would be less attractive to lenders and investors. The high renewables penetration targets in Ireland of 40% by 2020 are likely to mean significantly higher constraint levels with the possibility of curtailment, which would be a significant difference from GB arrangements. Market rules on compensation of constraints at high levels of renewable penetration are yet to be agreed, but this would make a flat rate CfD across the UK very unlikely to work in Northern Ireland.

31. Do you have views on the role that auctions or tenders can play in setting the price for a feed-in tariff, compared to administratively determined support levels?

- NIRIG would not support the use of auctions or tenders to determine the level of support and believes that an evidence-base approach would provide the levels of support necessary to incentivise NI developers to continue to develop and construct RE projects.
- Experience of the NFFO mechanism indicated that the auctions did not deliver the desired outcomes in terms of increased renewable generation. Experiences were similar in ROI where the AER process was also unsuccessful. There is little evidence to suggest that any auction or tender mechanism would achieve significantly different results in this context.

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