

THE NORTHERN IRELAND RENEWABLES OBLIGATION (NIRO)

A Response by the Northern Ireland Authority for Energy Regulation (NIAER) to the DETI consultation paper “The Northern Ireland Renewables Obligation - Preliminary Consultation (June 2004)”

The Department of Enterprise, Trade and Investment (DETI) proposes imposing an obligation on electricity suppliers to purchase a certain percentage of their electricity from renewables beginning at 2.5% of sales in 2005/6 rising to 6.3% of sales in 2012/13. DETI published a preliminary consultation in June and is seeking comments by 30 July. This paper is the Authority's response.

Background

Northern Ireland and Great Britain both endeavoured in the 1990s to stimulate renewables through Non Fossil fuel Obligations (NFFOs). These required supply companies (in Northern Ireland, NIE) to purchase power from a prescribed number of megawatts of capacity. Contracts were offered for up to 15 years at a price set at the beginning of the contract period and indexed to inflation. A similar procedure known as the Alternative Energy Requirement (AER) pertained in the Irish Republic. In their later phases these schemes secured generation at prices which were coming close to fossil fuel producers. Projects were bankable because the income stream was guaranteed subject to the plant's performing. In GB, in 2002 this system was replaced by a Renewable Obligation (RO). In Northern Ireland there will have been a period of several years between the implementation of the last NFFO and the introduction of Northern Ireland Renewable Obligation (NIRO).

There are significant differences between the context within which the RO was introduced and that in which NIRO will be introduced.

Northern Ireland has successfully grown its renewable capacity in the interval between NFFO and NIRO. This year 296 gigawatt hours (GW/h) of renewable electricity will be sold to the small and medium enterprise (SME) sector - requiring a production of 383 GW/h to meet the requirements of the current renewable trading regime and system losses - in addition to 69 GW/h to NIE's eco-tariff customers. This represents a total production of 452 GW/h or 5.1% of the electricity put on to grid in Northern Ireland. While part of this supply is made up of

imports from ROI, renewable generating capacity will rise to over 120 MWs this year and there is a long line of potential projects waiting to happen.

The second major difference between Northern Ireland and GB is that the market structure in NI already imposes costs on NI customers which are directly comparable to the burden which the RO imposes on customers in GB. This is because the loss of sales from fossil fuel power stations that occur in Great Britain when customers buy more renewables is a loss to the shareholders who own the fossil fuel stations. (In practice, there is probably no loss since the same companies tend also to be the largest owners of renewable generation). In Northern Ireland, both because of the generation contracts and the smallness of the market, the revenues of the power stations do not fall to reflect losses of sales. The same revenues are recouped by higher unit charges borne by the remaining customers. This effect could be made more transparent by being collected in a single Public Service Obligation (PSO). The cost of 358 GW/h of renewable sales in Northern Ireland is a loss of contributions to the system's fixed costs of £11.75m this year. This is made up of £3.23m in lower PSO charges levied on renewables and up to £8.52m in foregone contributions to the fixed costs of the generation contracts (presuming that the renewables sales displace generation from the PPAs).

The third major difference between the NI and the GB context is that it is Government policy to create a single electricity market in the island of Ireland in line with the spirit of the European Directive's internal energy market. NIRO introduces a major new divergence into the island's progress towards a single energy market. As the growth of renewables should be the principle theme of energy policy for the next fifty years, NIRO introduces a contradiction into the very heart of DETI's energy policy which Government will no doubt want to address. But reinforcing divergence through introducing NIRO will make this more difficult.

It is against this radically different set of circumstances that the Authority questions the wisdom of introducing a NIRO at the level proposed by the Department in order to accelerate the development of renewables in Northern Ireland.

The Role of NIRO

The NIRO mimics the RO introduced in 2002 in GB. The RO was intended to be the bedrock of the strategy by which renewable capacity would grow in Great Britain. Without it there would be no renewable development. The RO remains always ahead of output from installed renewable capacity - if it did not the value of ROCs would collapse and investment would dry up. In other words the RO is central to the strategy and drives everything.

Although intended as a RO look-alike, the NIRO is entirely different. It has, in its proposed form, no stimulating effect. Even if not another KW of renewable capacity were added over the next five years it would be in 2010 before NIRO caused the adding of a single KW of capacity in Northern Ireland. (And it might not even then, as suppliers could either buy ROCs in GB or pay the buy out). This effect is not accidental but intentional. NIRO is intended to follow production, not lead it, as it proposed to set it at half the level of the notional target.

It is a policy instrument that imposes costs but demonstrably achieves absolutely nothing. The consequence is that in 2005/6 when the obligation will be 211 GW/h per year there will be an unnecessary cost to customers of about , 6.5 million in respect of generating capacity which Northern Ireland customers are already financing. Northern Ireland electricity consumers are already more highly taxed than electricity customers anywhere in the UK. The NIRO adds yet another layer of tax without any benefits. Electricity customers are bound to resent a “tax” that increases prices but produces no revenues for further public purposes. It must therefore risk bringing the policy of promoting renewables into disrepute. It is wholly unreasonable and the Authority is bound to challenge it.

The Department should therefore remove from their proposal the element of gratuitous punishment associated with the present proposal. This could be done very simply by making the NIRO indicative and only imposing an obligation if and when the level of output attained in any year falls below the indicated level. If and when that happens, the obligation should be based on the shortfall and grow from that point.

The effect of the NIRO on the all-island market

The NIRO and the system of ROCs will exclude renewable electricity generated in the Irish Republic. This will exclude electricity generated in the Republic but directly connected to the NIE grid and not available for consumption in the Republic unless it is re-exported. There has been, over recent years, trade in renewable electricity and this year about 40% of Northern Ireland=s renewable consumption will be imported. As the NIRO/ROC arrangements will radically change the way in which renewable generators are remunerated the new arrangements will place ROI producers at a serious disadvantage if they wish to sell into the NI market. It will therefore constitute a trade distortion and is certainly inimical to the spirit of the European Single Market. Measures to neutralise these negative effects will be required if the NIRO/ROCs system is introduced but there is no indication in the consultation paper as to what they might be.

The effect of NIRO on Green Trading

At present, three suppliers in Northern Ireland sell green electricity. For two of them NIRO would not pose any problem other than the financial cost as they could use their obligated amount as the basis for selling green to niche markets. One supplier - and potentially others - sells only green electricity. To Oblige” such suppliers to take a few percent of their supply from renewable producers is a bureaucratic insult. Yet, for such suppliers to have all their supply covered by ROCs would price them out of the market. Given the limited extent of competition in the electricity market, the green challenge in the small business sector has been a particularly welcome development.

NIRO, if it closed down green trading, would have a negative effect on competition.

Responses to comments

Comment 1. All active suppliers in NI will fall within the terms of the NIRO.

If - as the Authority would argue - the NIRO is set at a zero level this becomes unimportant. However, since an obligation on 100% green suppliers is cost for no benefit, the NIRO should not apply to any supplier who is 100% green. This move would be a further stimulus to renewables.

Comment 2. - definition of Eligible renewables@ - the Authority would favour flexibility so that any promising technology inadvertently excluded might be admitted later. Moreover, Eligible renewables@ should include those ROI generators exclusively connected to the NI Grid.

additional support for technologies with NI potential. Yes - the Authority would like to see a better balanced renewable portfolio emerging.

Comment 3. - fossil fuel stations converting wholly to biomass. It is not clear what scope for applying this exists in Northern Ireland but in principle Yes@.

Comment 4. - usefulness of co-firing. Kilroot should be encouraged to reduce its CO₂ emissions by co-firing to the extent that this is compatible with NIE=s economic purchasing obligation. However, it should be appreciated that an economic signal to dispatch a co-fired coal station ahead of a CCGT would

be perverse in that it, while it might boost renewable figures, would increase CO2 emissions.

- Comment 5.** - geographical extent of ROCs. Any station whether off shore or not which is exclusively connected to the NI Grid should be entitled to ROCs.
- Comment 6.** On the basis that NIRO is a tax rather than a stimulus, then the lower the incidence and the later it is activated the better. On the basis that customers will already be supporting, by the end of this year, 120 MWs of renewables the NIRO should be set at zero until 2010 and 1% thereafter but then, only if output in 2009 is less than 9% of the total Northern Ireland demand for electricity.
- Comment 7.** Adequacy of the NIRO profile to stimulate renewables. The NIRO is not a stimulus to renewables so the question is based on a misunderstanding. The stimulus to renewables will come from support mechanisms which may be ROCs or capital grants or other support schemes. Even if these all failed, NIRO would not necessarily stimulate renewables as it is imposed on suppliers rather than producers and the former can comply by paying into the buyout fund.
- Comment 8.** - appropriateness of the unit size (1 Mwh) and frequency of issue. The unit size is appropriate. Frequency of distribution should be a function of cost effective administration but should be annual for micro producers or if possible integrated with the issuing of LECs.
- Comment 9.** - treatment of the proceeds of NFFO NIROC. The establishment of a Renewable Development Fund is desirable to ensure that a balanced renewable portfolio is developed in Northern Ireland. Only about half the NFFO NIROC proceeds will be a saving to customers and this could be offset by the cost of NIROC introduced too early, at too high a level. The Renewables Development Fund should be the surplus which NI can secure from minimising NIRO costs.
- Comment 10.** Compliance requirements. If NI generators are to be allowed to sell ROCs UK wide GB compliance rules should apply across the UK to prevent regional variations or gaming opportunities.

Comment 11. Distribution of NI buyout fund. Northern Ireland should not have a separate buyout fund. The GB market is more risky as has already been demonstrated. If NI has a separate buyout fund with a different probability of pay out the risk will ultimately be borne by NI customers. A single UK fund would be simple and NI suppliers could opt to simply pay the buyout fee - which would be the least risky and most transparent way of dealing with the cost of renewables.

Comment 12. Late payments etc: see comment above.

Comment 13. Direct impact on prices: Given that it is support to generators that stimulates renewables and not obligations on suppliers, NIRO has no effect on increasing the proportion of renewables in total consumption. It will, however, affect costs and will do so by the full amount of the buyout cost ie., , 6.5m rising to , 20m in 2012/13. None of this extra cost will stimulate renewables so it is an avoidable and valueless imposition on customers.

Customers will be also paying the other unavoidable cost of renewables. Since this is a burden customers in GB do not bear, it should be regarded as our share of the cost of developing renewables. We should not have to pay twice.

Comment 14. How can these costs be minimised and recovered? They can be minimised by using the NIRO as the RO was designed to be used in GB; that is an instrument that stimulates development where there is market failure. Thus it should only kick in when targets have not been met.

Comment 15. Can ROF and ROCs co-exist and would a review of ROF be desirable? ROF is only necessary if there is a market desire to continue to have green trading. There will be several hundred GW/hs of green - mainly wind - electricity put on to our network. If suppliers wish to buy this and market it as a green product they will face normal top and spill issues which, with wind, introduce substantial risk. A ROF mechanism remains relevant in those circumstances though the co-efficient should be recalculated.

Comment 16. Proposals for NFFO NIROCs. The Authority has enthusiastically worked with the Department in developing a broader renewable portfolio for Northern Ireland and welcomes the Department=s acceptance of the need for additional support for renewables. Missing from this report is any clear

commitment to establishing market confidence in small scale renewable initiatives of the sort supported by Action Renewables.

NFFO NIROCs will only be available for four years in useful amounts and a longer term framework for a Renewable Development Fund is required. The fund could be indicatively set at the level of the net gain from NFFO NIROCs but the size of the fund should depend on the extent to which Northern Ireland can avoid unnecessary renewable costs; in other words it should be inversely related to the size of the NIRO or buyout cost imposed on Northern Ireland customers.

Comment 17. Funding and use of Renewable Development Fund. The Fund should be similar to the Energy Efficiency Fund in that it is private money outside the public expenditure framework but able to mingle with public money and co-finance projects. It should have two priorities: providing a stable framework for micro renewables and for encouraging technologies that are appropriate to Northern Ireland but which, even with ROCs, are not commercially viable. This for wind could include aspects of electricity storage and the use of wind when constrained off the system. Where appropriate, the fund might also be used to underpin power-off take agreements entered into by PPB or a supplier, should such purchase schemes be the most financially efficient way of facilitating a development. The Fund might accept a producer's ROCs and the uncertainty over the longer term associated with ROC derived income in exchange for a guaranteed level of support - at a more modest level than today's headline price of ROCs. The Fund should work closely with PPB but it should be an independent entity. There are several funding routes that the Authority would be happy to explore with the Department. The Authority believes that the policy on funding should represent an attempt to create a virtuous spiral by which avoided renewable costs lead to a larger fund which leads to faster development of renewables leading to yet more avoided costs and a larger renewable contribution on Northern Ireland's requirements.

Finally, the Fund should work closely with SEI and ensure that the renewable development strategy in NI complements that of the Republic.

Comment 18. A levy on wind to fund other technologies. With wind generation receiving ROCs the economics of wind will change and wind generators will be required to make a larger contribution to system costs. The Authority

believes that in this new financial environment it should be possible for wind farms to pay the full costs which they impose on the system and still be more profitable than they are today. It would, however, not be the benefit of NIRO that is redistributed - since it is a cost not a benefit - but of the ROCs which the wind generators receive.

However, while a specific levy on wind might be reasonable in terms of wind specific developments - such as electricity storage or a micro wind turbine support scheme - it is not clear what grounds exist for singling out wind producers for a general renewables levy.

Comment 19. Equitable recovery of T&D costs. A good renewables project in the wrong place is simply a bad project and customers should not be expected to subsidise it, giving it advantages over projects whose overall costs - including network costs are lower. The general principle must be that all projects must bear their full costs until we reach saturation point.

In the meantime, as part of the development of an all-island market common rules should be developed for applying a common policy on network costs and other systems costs - such as spinning reserve costs - which renewables impose on customers.

Conclusions

The expansion of Northern Ireland's renewable portfolio ironically comes at a time when the economic and environmental benefits of renewables in Northern Ireland are declining. This is because CCGTs are replacing our old stations and in so far as the CCGTs run less than they might because they are partly displaced by renewables the carbon dioxide that is avoided is only about one third of what it would have been with our older coal stations. Moreover, even though gas prices are currently high, the greater efficiency with which CCGTs convert gas into electricity means that the value of the fuel savings because gas is displaced by wind or water is less - and if the gas is displaced by biomass there may be no saving. But gas fired CCGTs only provide us with a twenty year window of relative environmental virtue. The long term case for renewables is overwhelming and a coherent Departmental strategy is necessary. The Department's proposal goes a long way to providing the basis for that strategy.

The three major reservations that the Authority has about the proposal in its present form are:

- (1) the failure of the Department to appreciate that customers in Northern Ireland are already, because of our market structure, paying the equivalent of the Renewable Obligation. NIRO, in its proposed form is double taxation;
- (2) the proposed approach does not provide Northern Ireland with any incentives to out-perform. Virtue is not rewarded and indeed vice is not punished. The economically rational approach for customers collectively under this structure would be to do the very minimum required. Northern Ireland's long suffering electricity customers should be able to benefit from their efforts; the structure must incentivise Northern Ireland to out-perform; and
- (3) if the Department is serious about creating an island-wide electricity market, measures must be found for developing a common island wide approach to renewables since with increasing network integration unilaterally determined and hence divergent renewable strategies will impose costs on network investment, market operations, electricity prices and system management which may be unacceptable on the other party. As renewables grow in importance, unilateralism in renewables policy making could become a cancer, eating away at the heart of the attempts to build an all-island electricity market.

The Authority will publish a separate on trading options for renewables in the world of ROCS and Emissions Trading. Decisions must be taken in the autumn for the 2005/6 trading year.

The Authority looks forward to discussing with the Department constructive solutions to the three areas where we have expressed reservations.