

# Next Steps Paper on Electricity Connection Policy for the Northern Ireland Distribution System

10 May 2011

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# 2 Introduction

On 15 November 2010 the Utility Regulator published its consultation on Electricity Connection Policy to the Northern Ireland Distribution System.

The consultation closed on 10 January 2011 and a total of 24 responses were received.

Responses have now been published on the Utility Regulator's web site and can be viewed at the following link:

http://www.uregni.gov.uk/news/responses\_ni\_distribution\_system\_connection\_policy\_c onsultation\_15\_nov\_2011/

Responses from ABO Wind Ireland, Bord Gais and RES UK and Ireland all stated their full support to the response from NIRIG and have therefore been counted as separate responses.

The purpose of the consultation paper was to identify the specific areas of the current Statement of Charges for Connection to the Northern Ireland Distribution System which may need to be reviewed. These areas could have an impact on the current costs to connecting customers and also those who pay for use of the system that they are already connected to.

The consultation was also required to address the recommendations that were made to the Utility Regulator through the ETI Committee.

The areas that were considered appropriate to review were:

- a) Current charging methodology in the Statement of Charges (new domestic and smaller business connections)
- b) Treatment of domestic connections of significant cost
- c) Connection costs paid by —vulnerable customers
- d) Connection of micro-generation
- e) Rebates for generators and customers
- f) The definition of —connection assets and associated costs
- g) Timing of Connection Offers and Connections
- h) The treatment of Charges for Connecting Groups of Generators
- i) Operation and Maintenance (O&M) Costs
- j) Grid Code and Trading and Settlement Code Costs
- k) Contestability
- I) Views on the Statement of Charges in general
  - Charging statement and transparency of fees
  - NIE T&D resources

The Utility Regulator's current position on each of above areas is discussed in this paper.

# 3 Current Charging Methodology for New Domestic and Smaller Business Connections

The current charging methodology in the Statement of Charges produced by NIE provides information for domestic customers and small business that require a new connection. The provisions for this group of customer, who are neither an over 1MW customer nor an authorised generator, is identified in section 5.1 of the statement. Any customer in this category wishing to connect is required to pay 60% of the estimated cost of installing new and/or modified Connection Assets.

NIE's current price control makes provision for the recovery of the 40% subsidy via its capital allowance. The depreciation of the assets is charged annually and a return on the capital is paid at the rate specified for distribution system assets. Customers on DUoS tariffs for demands greater than 1MW do not contribute to the subsidy. In addition the subsidy is recovered from the remaining distribution demand customers according to their DUoS tariff type, e.g. domestic customers pay less than commercial customers.

In the consultation it was proposed that, in order to promote cost reflective charging and to encourage connections at the points of the network that require the least construction of new assets, the 40% subsidy be removed from the start of RP5.

Of the 24 responses 7 respondents commented on the removal of the 40% subsidy. 3 considered it appropriate to remove the subsidy and 1 did not. 3 called for the subsidy to remain in some form:

- a) new connections for micro-generation now receive a 40% (or higher) subsidy as an added incentive for micro-generation schemes.
- b) in rural areas where more construction assets are required the 40% subsidy could remain.
- c) as the majority of the good wind sites are in outlying areas with weak grid connections subsidies should remain in some form.

#### Next steps

It is proposed that the Utility Regulator considers removing the 40% subsidy from the start of RP5. Any further decisions on the removal will be taken as part of NIE's next regulatory price control period RP5 consultation process.

# 4 Treatment of Domestic Connections of Significant Cost

Views sought in the consultation document relating to the treatment of domestic connections of significant cost were:

Do you consider that the charging of the full cost of a connection for a new dwelling or business premises would act as a locational signal to future developers and will ensure a balanced decision about the total costs associated with the alternative options available?

Of the 24 responses 5 respondents commented on this issue.

3 considered it appropriate to charge the full cost of a connection for a new dwelling or business premises and 1 did not. 1 respondent did not specifically comment on new dwellings however did state that existing housing, with no established connection, should be provided a connection free of charge.

#### Next steps

Having given consideration to all comments given in relation to connections of significant cost it is the Utility Regulator's view that subsidies should not be provided to any connections regardless of price to ensure full cost reflectivity. Current policy in this area will therefore remain unchanged.

The Utility Regulator is mindful of the possible financial burden this may put on some customers however it is the Utility Regulator's view that these customers should not benefit at the expense of the wider customer base with regard to utility connections.

With regard to dwellings with no established connection the Utility Regulator is also of the view that these customers should not benefit at the expense of the wider customer base.

# 5 Connection Costs Paid by "Vulnerable Customers"

A vulnerable customer seeking to connect to the distribution system is currently treated no differently than any other customer and will be required to pay NIE for the cost of connection. This is regardless of whether or not the customer in question has the ability to pay for his or her connection. The removal of the 40% subsidy would possibly increase the number of occurrences of this situation, however the affordability threshold for vulnerable customers is low and there is a concern that even a subsidised cost of connection could be deemed excessive.

Of the 24 responses 7 respondents commented on all or some of the issues below.

1. Do you consider it appropriate that the Utility Regulator, in conjunction with the CCNI, and NIE divert resources to this line of work?

Regarding the above, 5 respondents considered this to be appropriate with 1 other respondent stating that it is imperative to develop a framework to be employed in the definition and identification of vulnerable customers.

2. Do you consider that it is appropriate that a limit should be set as to the amount a vulnerable customer should pay for their connection?

Regarding the above, 3 respondents considered it appropriate for a limit to be set.

1 respondent's response indicated that regardless of the limit, a vulnerable customer could struggle to pay for a connection cost.

1 respondent was not certain that it is the role of the electricity network to determine the support for connecting to it for vulnerable customers.

3. What levels of funding do you consider to be appropriate for vulnerable customers?

There were only 2 responses to this question with both respondents stating that the level of funding should be decided by the regulatory authorities.

4. If a limit is set do you consider it appropriate that those vulnerable customers with a high cost connection have part or all of their connection funded through the wider customer base?

There were only 2 responses to this question. Both responses indicated that funding should be from the wider customer base. 1 of the responses also felt that due to low incidences the provision of electricity infrastructure should not represent a significant burden on the wider customer base.

5. What steps do you consider appropriate for the Utility Regulator to take to ensure that any new process developed for the treatment of vulnerable customers is not abused?

Only 2 responses directly answered this question.

1 response stated that any new process will only work through the continued use of regulatory processes and also in consultation with vulnerable customers and their representative organisations.

NIE stated they would be prepared to assist the agency or agencies designated to decide on vulnerability and ability to pay.

Other relevant comments where on this issue in general were:

'Through the use of a pro forma on each individual case will not increase the significantly the administrative burden.'

'It is imperative to develop a framework to be employed in the definition and identification of vulnerable customers.'

1 respondent, a vulnerable customer, indicated that the financial burden on obtaining a connection was too high given his current circumstances.

#### Next steps

Having consulted on the issues surrounding vulnerable customers and their ability to pay for a connection to the Northern Ireland Distribution System the Utility Regulator is now mindful of the cross utility implications that this brings with regard to utility connections.

The Utility Regulator is therefore proposing not to make any changes to policy in relation to vulnerable customers. The Utility Regulator may however, consider any future proposals on a cross directorate level.

# 6 Connection of micro-generation

The concerns raised surrounding micro-generation related to the suitability of the rural network, network security and the current forms of support for micro-generation.

Of the 24 responses 18 respondents specifically commented on the issues surrounding the connection of micro-generation.

Do you consider it appropriate for micro-generation connections to be subsidised by the use of system tariffs in NI, given the demand profile and generation portfolio expected over the coming decade and the target of 40% of electricity supplied in NI to come from renewable sources by 2020.

17 respondents commented specifically on the issue of subsidies. 4 of the 17 respondents supported subsidies and 1 did not while the remaining respondents provided general views.

NIRIG stated 'NIRIG supports the introduction of the revised and financially attractive ROC tariffs introduced on 1st April 2010 to support micro and small scale generation. This has sent a strong signal to the market resulting in widespread deployment of micro generation technology and wind in particular. NIRIG would like to see detail of the form and level of additional support which the regulator is considering'.

5 respondents supported NIRIG's position.

Other comments where:

'Micro generation does not have to be renewable. The amount of non-grid code compliant micro-generation should be capped. A more "natural" way to provide for the development of micro-generation would be to limit the subsidies afforded it.'

'Subsidy should be applied where a three phase grid connection is required.'

'If NI is to achieve a similar level of small scale generation, then an additional financial incentive can be provided through subsidised grid connection costs.'

'Barriers currently exist which prevent many households accessing micro generation and a cost benefit analysis should be undertaken to ascertain whether financial incentives are the best way to overcome these.'

'All single stand alone micro and small scale generators up to 1MW including hydro and Anaerobic Digestion plants should have some incentives or subsidies.'

What level of subsidy of the cost of connection do you think should be considered by the Utility Regulator?

16 respondents commented specifically on the level of subsidies.

The levels of subsidies ranged from 40-50%. Other suggestions were for subsidies to be at the same level as those in GB.

NIRIG did not suggest a level but would like to see detail of the form and level of additional support which the regulator is considering. 6 respondents supported this view.

Other comments where:

'Final connection charging would be more consistent with other proposed changes if charged at 100% of the costs of that work.'

'Constraint levels on the generator and the timing of transmission reinforcement should be taken into account.'

'Subsidised to at approx 50% to promote the up take of small scale renewables in N. Ireland. This should apply to all existing installations and outstanding quotations from NIE that falls inside the Renewables Obligation period.

#### **Next steps**

Having consulted on the issues surrounding micro-generation the Utility Regulator is now mindful of the cross utility implications that this brings with regard to utility connections.

The Utility Regulator is therefore not making any decision at present in relation to microgeneration but may consider any future proposals on a cross directorate level.

# 7 Rebates for Generators and Customers

The consultation paper highlighted issues surrounding rebated shared connection costs in that the current definitions only apply to domestic customers and this could be seen as impacting on other classes of customers e.g. businesses. There is also a material distortion between the time frames as applied to transmission and distribution connections.

The questions asked in the consultation were

- 1. Do you consider it appropriate that a ten year period for rebates for shared connection assets is adopted?
- 2. Do you consider it appropriate that rebates will apply to all classes of customers connected to the distribution system?

Of the 24 responses 15 respondents commented on this issue.

14 considered it appropriate that a ten year period for rebates for shared connection assets is adopted. 1 did not.

All those that commented were in favour of rebates applying to all classes of customers connected to the distribution system.

Other comments provided were:

'Process could become cumbersome.'

'DWC strongly believes that if a wind farm project is terminated at any point prior to energisation by a developer, then NIE should endeavour to refund any connection charges that have not been committed at that point by NIE.'

'What mechanism will be available to those parties that have already paid for what in effect will be substantially higher grid connection fees, to clawback the significant cost differences?'

'Earlier movers and the extra financing associated with their connections should not be overlooked in any new pricing agreement.'

'Rebate policy could be as per Rol.'

'Where grid connections are more expensive such as remote quarries and factories the time period could be up to 20 years.'

'A further review is required to consider lengthening the period of rebates to the lifetime of the Connection Asset.'

### Next steps

The Utility Regulator will liaise with DETI and will ask DETI to consider modifying the Electricity (Connection Charges) Regulations (Northern Ireland) 1992. In seeking this change the Utility Regulator will recommend that the prescribed period for the purposes of these Regulations is changed from five years to ten years.

The timescale for implementation will be at DETI's discretion however the Utility Regulator will look to ensure that consideration is given to early movers to make sure that financing associated with their connections will not be overlooked in any new pricing agreement.

# 8 The Definition of "Connection Assets" and Associated Costs

As detailed in the consultation paper, at present a customer connecting to the distribution system is required to pay for the assets necessary to:

- connect the customer's equipment to the distribution system;
- reinforce the Distribution System which are at the connection voltage level and one voltage level above and
- In the case of a customer connecting at 33kV, reinforce the Transmission System at 110k.

This can therefore be classed as a "partially deep" connection policy.

The Utility Regulator is keen to ensure that costs for connecting to the distribution system are transparent and fair and do not place an unreasonable financial burden on customers and generators looking to connect.

One option, the Utility Regulator is considering, is a change to the distribution connection definitions.

Of the 24 responses 13 respondents specifically commented on all or some of the issues below.

Do you consider changing the definition currently in place regarding connection assets for the distribution system appropriate?

Regarding the above, 10 respondents were in favour of changing the definition currently in place.

Other comments where:

'The proposal to introduce a 'semi shallow' connection policy does not take into account the firmness of the connection.'

'There is only limited detail on the proposed changes in the consultation paper. As part of the next steps in the consultation process greater detail, including examples, should be provided for further comment by industry.'

'Question if moving to a 'semi shallow' connection policy is compatible with the Utility Regulator's stated desire to ensure transparent, fair and cost reflective connection costs.'

The Utility Regulator welcomes views on the merits of changing from a partially deep to semi-shallow connection, and the appropriateness of charging only demand customers for use of the distribution system. Views on the above were:

'Propose that the Utility Regulator and NIE should scope the terms of a review which should be conducted before deciding this matter.'

'In favour of moving to a 'semi shallow' connection policy.'

'Agree with the appropriateness of charging only demand customers for use of the distribution system.'

'As the majority of deep reinforcements for windfarms are at transmission level (110 kV) it does not seem necessary to introduce a new DUoS tariff for generator connections.'

'Not in favour of the introduction of distribution use of system charges for generators.'

'A shallow charging connection policy based on the minimum required connection assets should be applied to generators.'

'What allowance will be made when this grid connection is used for a dual-purpose import and export? Will NIE allow any discount on grid connections, which include import load?'

'Ensure that reduced connection charges are not outweighed by increased network use of system charges.'

'Existing generators that have paid the full cost of connection assets should not be liable to any introduced DUoS charges. This would be double charging. A clear methodology for calculating the Duos charges should be developed and consulted upon.'

'The large percentage of small scale single wind turbines up to 250kw may spill any surplus to grid export. This creates an import/export scenario; will import load subsidy be available on these connections?'

#### Next steps

The consultation has shown that changing the definition of a connection asset would be welcomed by most. The Utility Regulator is aware that to do so would require input from the Single Electricity Market (SEM). It is therefore the Utility Regulator's intention to consider taking this issue forward through SEM working groups and as a joint work stream with CER.

# 9 Timing of connections

NIE's licence Condition 30 Requirement to Offer Terms for Connection to and Use of Distribution System part 6 states

the period specified shall be:

(b) in the case of persons seeking connection or modification to an existing connection or seeking use of system in conjunction with connection, 3 months.

There are no requirements defined for the time allowed to NIE for carrying out the work.

Views sought in the consultation document related to timing were:

- 1. Do you consider it appropriate to incentivise NIE to reduce connection and quotation times?
- 2. Do you consider it appropriate that NIE include a contractually binding duration for the connection works in their offers, with the areas outside their control that relate to the timing of that specific connection identified?

Of the 24 responses 19 respondents commented on one or other of the issues above or regarding timing generally.

Regarding incentives 7 considered it appropriate to incentivise NIE to reduce connection and quotation times.

Regarding a contractually binding duration for the connection works 13 considered it appropriate.

Several of the respondents were in favour of a facility to allow for the early signing of connection agreements.

NIE were in favour of incentives and against the proposal to introduce a contractually binding duration for the connection works within the terms offered for connection. Given that there are elements of the process, particularly with respect to gaining DRD Planning Permission, the granting of legal permissions by third parties and compliance with Roads and Street Works legislation, which are beyond the direct control of NIE any agreement to a date for connection would need to recognise these external factors.

Other comments where:

'Timeframe for quotes to be reduced from 12 to a maximum of 8 weeks.'

'The inclusion of estimated milestone dates within the connection offer to focus NIE to deliver the connection in a timely manner.'

'An approved template or standard form of connection offer should be devised.'

'NIE should produce a public monthly update on the number of connection offers received and average processing time.'

Many of the respondents questioned NIE's ability to provide quotations and offers within the timescales stipulated in their licence.

#### **Next Steps**

It is therefore proposed to investigate further and if required audit NIE's undertaking in this area.

It is proposed to look at incentives options within NIE's next regulatory price control period RP5 timescale.

# **10** The treatment of Charges for Connecting Groups of Generators

As part of its consultation on Electricity Connection Policy to the Northern Ireland Distribution System the Utility Regulator asked for:

Any further views respondents may have on NIE's recommendations to the Utility Regulator on the Charges for Connecting Groups of Generators to the Northern Ireland Distribution System.

Any responses given have been have been dealt with under the decision paper titled:

Decision Paper on the Charges for Connecting Groups of Generators (Clustering) to the Northern Ireland Distribution System

This paper can be accessed under the following link and has therefore not been reproduced as part of this paper:

http://www.uregni.gov.uk/news/decision\_paper\_published\_on\_charges\_for\_clustering\_o n\_the\_ni\_distribution\_system/

# 11 Operation and Maintenance (O&M) Costs

As part of the consultation respondents were asked if they considered O&M costs and method of charging for them to be appropriate?

Of the 24 responses 15 respondents specifically commented on O&M costs.

Views on O&M costs were:

'O&M charges to be spread over the life of an asset.'

'O&M costs described and the method of charging for them to are appropriate.'

'Current arrangements could be reviewed against the possible alternative of taking annual payment for O&M charges over a certain value.'

'O&M costs should be on a yearly basis.'

'Some developers have requested that the charge is charged annually. Applying average O&M does not seem very equitable for different type of connection methods. No decommissioning bond should be required.'

'O&M costs are too high. Small scale wind turbines need to be allowed to connect to the local grid system at a reasonable cost and without over regulation from NIE.'

'O&M costs are excessive and put an unfair financial burden on the generator. Review required. O&M charges could be calculated for each standard piece of connection equipment.'

'O&M costs are too high. No differences made between small scale single turbines and the wind farm connections on the other end of the scale.'

#### **Next steps**

As part of NIE's next regulatory price control period RP5 the Utility Regulator will scrutinise O&M charges and will look to implement changes depending on the outcome.

# 12 Grid Code and Trading and Settlement Code Costs

The Transmission System Operator is required to have communications links to any distribution connected generators that must be grid code compliant and they must also undertake studies to identify the impacts that these generators have on the transmission system. The costs of these studies and communications systems are not explicitly included within the costs that are charged to connecting generators.

For Grid Code and Trading and Settlement Code Costs the Utility Regulator asked:

Do you consider it appropriate that costs associated with compliance with the Grid Code are reflected in the Statement of Charges for Connection to the Northern Ireland Distribution System? The Utility Regulator would welcome views on any issues or concerns relating to this issue.

Of the 24 responses 15 respondents commented on this issue.

The majority of respondents were in favour of reflecting grid code costs in the Statement of Charges for Connection to the Northern Ireland Distribution System.

SONI would prefer that all costs associated with the connection process, TUoS agreements, Grid Code compliance and Market Registration are recovered directly from the generator rather than NIE.

Other comments where:

'Costs may not be explicit enough within the offer and NIE accepts that there is scope to improve the transparency of these costs.'

'All connections costs should be transparent. Greater co-operation is required between NIE and SONI in the preparation of distribution connection offers.'

'Costs are too high and the rules regarding connection are too stringent.'

'A review of how testing is undertaken should be carried out to minimise costs.'

'Costs should be clearly identified and explicitly communicated to customers.'

'SCADA and communication costs are unreasonable and do not apply to similar size of projects in ROI or GB. Grid code requirements are too stringent.'

'It is unfair for NIE to take control of a private generator and restrict outputs and the need for secondary telecommunications is unnecessary.'

#### Next steps

The Utility Regulator will ensure that Grid Code and Trading and Settlement Code costs are reflected in the Statement of Charges for Connection to the Northern Ireland Distribution System going forward.

The Utility Regulator will request that the Distribution Code Review Panel and the Grid Code Review Panel re-examine the rules surrounding connection to ensure these are appropriate.

As part of NIE's next regulatory price control period RP5 the Utility Regulator will scrutinise SCADA and communication costs as part of connection charging.

# 13 Contestability

As part of its Forward Work Plan the Utility Regulator has stated that it will review the regulatory framework with a view to facilitating private network development and connections wherever appropriate. The Utility Regulator has already started discussions with both DETI and a private network developer in the area of private networks. This does not however cover connections at this time.

The disaggregation of connection activities into contestable and non-contestable activities would need careful consideration as would the arrangements whereby the Utility Regulator and NIE could be satisfied that new entrants to the connections market would adhere to consistent quality and health and safety standards.

The consultation welcomed views on any issues or concerns relating to this topic.

Of the 24 responses 16 respondents commented on the introduction of contestability for connections. All 16 respondents were in favour of this introduction.

NIE would support a move towards competition in connections. NIE believes that certain activities within the connections domain should not be exposed to competition.

#### **Next Steps**

It is proposed that the Utility Regulator will investigate further the introduction of contestability for connections. This program of work will run in parallel with the RP5 Program.

# 14 Charging Statement and Transparency of Fees

In the consultation paper the Utility Regulator welcomed views on the Statement of Charges in general. In particular respondents may wish to comment on payments and timings.

Of the 24 responses 12 respondents commented on costs.

Views ranged from:

- a) the connection costs of a generation project are the hardest to finance. It can not be asset financed and is often required to be paid in full at the start of a project construction period well in advance of any income being generated by the project.
- b) what mechanism will be available to those parties that have already paid for what in effect will be substantially higher grid connection fees, to clawback the significant cost differences?
- c) there is a view that there has been significant increases in quotation fees and that transparency around theses charges is required.
- d) there has been an increase in the use and costs of special protection schemes and costs for these are not reflected in the Statement of Charges.
- e) a statement of standard costs for general plant items should be published and in particular those for generators.
- f) SONI would prefer that all costs associated with connection processes, communications, TUoS agreements, Grid Code compliance and market registration for relevant distribution connected generators are recovered directly from the generator rather than via NIE. This would, in their opinion, also make the rebate process a lot simpler and transparent.

#### **Next Steps**

It is proposed to instruct NIE to restructure and provide more information within the Statement of Charges.

There could also be benefit in producing a more harmonised approach both north and south given NIE's relations with ESB. The Utility Regulator will explore this area further with NIE and liaise with CER where appropriate.

It is proposed to examine further both the estimated and outturn costs and if required audit NIE's undertaking in this area. Any findings arising from this investigation will be made public and conveyed directly to those who responded.

### 15 NIE T&D Resources

The issue of NIE T&D resources was not specifically covered within the consultation paper however there was sufficient interest from respondents to merit review. Of the 24 responses 14 respondents commented on NIE T&D resources.

All of the respondents stated that they felt that:

- a) the connection application fee already represents a significant amount that should ensure appropriate resources are available within NIE.
- b) additional resources are required to meet existing and future workload in this area.
- c) the Utility Regulator should hold NIE accountable for non-compliance of the license requirements.
- d) a review is needed of NIE resources to ensure adequacy

NIE's licence Condition 3 Availability of Resources and Undertaking of Ultimate Controller states

The Licensee shall at all times act in a manner calculated to secure that it has sufficient resources (including, without limitation, management resources, financial resources and financial facilities) to enable it to:

- a) carry on the Separate Businesses; and
- b) comply with its obligations under the Order, the Energy Order, the SEM Order and this Licence.

#### **Next Steps**

Given the number of responses commenting on NIE's resources and staffing it is proposed to investigate further and if required audit NIE's undertaking in this area as part of NIE's next price control RP5. This work can be carried out in tandem with the investigation into Timing of Connections.

Any finding arising from this investigation will be made public and conveyed directly to those who responded.

#### **16 Other Comments**

The Utility Regulator welcomed views on the Statement of Charges in general. In particular respondents were asked to comment on payments and timings. Where possible, given the constraints on confidentiality, respondents were asked provide details on how they believe the charging statement has failed to address individual connection problems.

Comments provided generally were:

Any new arrangements may disadvantage those connecting prior to changes. What mechanism would be provided for 'early movers'?

Concerned over both costs and the uncertainty whether a connection would be available at all.

Concerns expressed over constraints.

Concerned that connections can be complex, costly and lengthy process.

Current connection policy unsuitable for tidal. Offshore connection policy will need to be different than that of onshore. The outcome of the Crown Estates leasing round should be used by NIE as the basis for grid development.

It is not fully clear for generators in NI as to what constitutes firm and non-firm access. Would welcome greater clarity as to how connection offers as issued by NIE will be viewed by the market in terms of their firmness. Benchmarking exercise include ROI as a comparison. Supports the proposal that standard costs for general plant items should be published.

Payment schedule should be included. Each grid development project will have clear deliverables and milestones. Flexibility in connection charges for projects constructed in phases. Refund any connection charges that have not been committed for projects that do not go ahead. A full review of the connection agreements and connection offers documentation is required. Input from the TSO to be included in the NIE connection offer.

Significant change in the small renewable generation over the last year, prompted largely by the introduction of the Renewable Obligation Order (NI) 2010 in the renewable sector. The enhanced banding arrangements for some technologies has led to a switch in interest from micro generators (<50KW) to larger generators (>200kW). NIE resource will need to be addressed in RP5. An improved online facility may help enquiries. Problems with meters on some renewable installations flagged.

Recommend that there needs to be a small-scale category 50kw to 250kw to harmonise the categories with other government departments such as DETI. Suggest that all small

scale generators who have got connected to the grid network during the ROC support period (1st April 2005) should be entitled to the same subsidy offered to new comers. Connection to the NIE grid system are on average a 100% more expensive here than those in Europe.

Costs for connecting to the distribution system should be transparent and fair and would encourage further work in this area.

NIE seem to treat small turbines on the same scale as groups of large MW turbines. Rather than spend large amounts of money on the SCADA system this could be used to upgrade or reinforce the grid in those areas and increase the potential of connection more generation.

# 17 Annex 1 - List of Respondents

Renewable Power Systems Mr Paul Kelly Balcas Mr Patrick Stickley Action Renewables NI Environment Link Viridian Power and Energy NIE DW Consultancy Ltd **NRG Solutions Ulster Farmers Union** ESBI Ocean Energy ESB Wind Development NIRIG **NIE Energy Limited** SWEG ABO Wind Ireland **RES UK & Ireland** SSE Renewables Bord Gáis Energy B9 Organic Energy SONI CCNI Linton & Robinson Group