Response by Energia to NIE/SONI Consultation

Alternative Connection Application and Offer Process Proposal

30th March 2016

Introduction

Energia welcomes the opportunity to respond to the NIE Networks and SONI Consultation Paper "Alternative Connection Application and Offer Process Proposal". Energia is one of the largest contributors to the achievement of Northern Ireland's renewable targets.

The recent increase in renewable generation has taken place against the backdrop of a stable policy environment. The grid connection application process has previously worked satisfactorily and the requirement prior to August 2015 to have planning consents for the generation facility before a connection application is processed ensured the process was efficient as it minimised the number of 'speculative' projects entering the connection process, reduced nugatory workload and prevented capacity hoarding. We recognise the significant connection issues and challenges arising from the recent influx of applications which NIE Networks and SONI are currently trying to manage. We support NIRIG's request that the option of reinstating the planning requirement for new connections or modified connections which increase the MEC, in cases where planning is required. Energia in general also supports NIRIGs response, except that in respect of FAQs and ATRs we are of the view that these are less important for batch offers, whereas GOR projections are of fundamental importance. We also differ on some matters of detail in the question responses.

Key Points

1) Existing Transmission and Distribution Capacity Rights must be protected

Connection applications and modification applications which do not increase MEC are, as a matter of law, fundamentally different and accordingly must be treated differently. A connection agreement grants a Generator certain enforceable contractual rights, including the right to export electricity on to the NI System through the Connection Point at a level up to the MEC and the right to have a modification application processed within defined timeframes. NIE Networks have corresponding licence obligations guaranteeing such rights. In discharging these obligations, we acknowledge the need for NIE to have regard to a range of matters, including the matters set out in the consultation at questions 7-10. However, the fact that NIE must have regard to such matters in processing modification applications does not in any way diminish the primacy of the existing rights to capacity of connected parties.

All generators, conventional and renewable, have the right to pass electricity on to the NI System through the Connection Point at a level up to the maximum export capacity (MEC). The MEC represents a right to export that

amount at all times, subject only to limited rights of interruption set out in the Connection Agreement. Connection rights are legally enforceable access rights that may be exercised at all times in accordance with their terms. NIE Networks have corresponding licence obligations guaranteeing such rights. Further all connected Generators are paying, or will be paying, Use of System charges based on 100% of the MEC, and not some lesser amount based on capacity factor. NIE Networks and SONI do not have the vires to offer the access rights (in whole or in part) which are held by an existing Generator to any other person. We acknowledge that pursuant to Article 32.2 of Directive 2009/72/EC it is clear that, subject to certain conditions, it is open to a System Operator to "refuse access where it lacks the necessary capacity" (our emphasis). However it is not open to a system operator to refuse access in other circumstances. It is also important that NIE Energy and SONI do not discriminate against certain types of generation. NIE Networks and SONI have licence obligations which require them not to unduly discriminate as between any person or persons (or any class or classes of person or persons). They would therefore be in breach of their Licence Obligations if they illegally seek to limit the right to pass electricity on to the NI System through the Connection Point at a level up to the maximum export capacity (MEC) for certain classes of generators, such as onshore wind, whilst not seeking to limit the rights of conventional generators.

NIE Energy and SONI's modelling of the impact on the system of different generators are not strictly relevant to the principle of this issue. Connection rights are not limited by: wind speed or capacity factor; commodity prices or load factor, merit order; or market rules.

We are concerned that the consultation does not appear to recognise this principle. The treatment of Connection applications and modification applications which do not increase MEC should not be included within the proposed batching arrangements. The legal rights of existing transmission and distribution capacity rights holders should be explicitly recognised and must be safeguarded. Our rights as a connected party cannot be postponed or altered by the Consultation Paper, which can only deal with the process for allocation of new or additional connection capacity. In granting such access, regard must clearly be had to the rights of existing connected parties, including the contractual rights of such parties to both MEC and the right to have modification applications processed in the prescribed timeframe.

2) There is a need for recognition of the advantages of co-location of system services and generation and policy objectives should be taken into account

Co-location of new assets (which provide active power and/or reactive power) at sites which use existing connection assets is advantageous from a customer cost, system operation, and environmental perspective. This includes sites with the same generation technology, hybrid generation technology sites, and adding system services (such as storage) to existing generation sites. The consultation has limited recognition of the advantages of optimising the use of existing connection assets and it further seeks to include in the batch process modifications which do not increase MEC or which add additional technologies at an existing site. Such an approach undermines the opportunity for co-location under the NIRO, the capability of existing generation sites to offer new DS3 services, and the capability to repower existing conventional (e.g. Kilroot) and renewable generation sites which will be needed in the short term.

The System Operators and the Regulatory Authorities have pointed out the need for new system services due to the increasing levels of renewable generation connected to the system. However if existing conventional and renewable generation are to install new technologies which provide system services, NIE Networks and SONI are effectively proposing that this should be part of the batch process which would significantly undermine the potential for the timely delivery of system services in Northern Ireland unless co-location behind an unchanged MEC is accommodated and prioritised.

Co-location of system services has already been successfully accommodated as demonstrated by the 10MW AES battery storage scheme which shares the existing grid connection at Kilroot Power Station. This battery technology provides an additional source of active and reactive power at Kilroot Power Station which can be used by the System Operator during system events. The additional 10MW of capacity at Kilroot Power Station means that the power station is capable of generating at levels greater than the Maximum Export Capacity however internal control system limit the total generation to the Maximum Export Capacity. In our view SONI have set a precedent as they have not sought to limit the right to pass electricity on to the NI System through the Connection Point as a result of additional technology being commissioned at the power station. The proposal to include such connections in the batch process would result in high levels of constraints and curtailment in Northern Ireland which will not be in the interest of customers.

Any new process needs to be consistent with energy policy and the strategic energy framework. There are a number of significant regulatory/statutory changes which are being progressed which will have a material impact on the

demand for grid access in Northern Ireland. These changes include: ISEM Capacity Reliability Options; ISEM Energy Trading Arrangements; DS3 Arrangements; and the European Network Codes. However the proposed connection policy does not take into consideration any of these important factors which will drive the demand for connections in Northern Ireland. In the absence of renewable support mechanisms any new generation connections will need to rely on market revenues from the I-SEM (DS3 system services, Capacity Reliability Options, Energy Trading Arrangements). The connection policy and the proposed auctions for DS3 and Capacity (for example pre-qualification requirements and timelines) must therefore be designed to work together otherwise no party will invest energy assets in Northern Ireland.

Investment decisions will need to be made in the short term to ensure the delivery of these essential investments. However if the batch process takes up to 2/3 years and it is a further 5 years before commissioning of new generation capacity it could be up to 8 years before any replacement generation capacity (or system services) can be relied on in Northern Ireland. If the alternative connection process does not work with the proposed ISEM arrangements there is a material risk that Northern Ireland will not be able to attract the essential investment in energy assets which it needs.

The connection policy should also take into consideration the proposal for taking forward Northern Ireland Climate Change Legislation. Displacing fossil fuels in transport, heating, cooling and cooking with electricity from renewable sources like wind, solar, hydro, tidal and biomass will be fundamental in achieving GHG reduction targets. The ambition to decarbonise the energy sector by 2050 should also be taken into consideration in the connection policy.

3) Connection offers under the batch process must be financially capable of acceptance and not subject to the outcome of other generator connection acceptances

It is completely non-viable to ask a generator to accept a connection offer on the basis that the price could vary hugely dependent on other offerees actions. A batch connection offer should be issued on the basis of a firm price, and any shortfall arising from other generators not accepting their offers should be covered by the electricity customer, as is the case under the current cluster connection arrangements. The paper does not discuss interactions with the arrangements which NIE Networks are developing for contestable connections.

4) Spare capacity allocation

Energia supports the proposal for offers to be issued for any spare capacity at cluster substations, subject to the legal capacity rights of existing generators.

5) Consideration should be given to reinstating the planning requirements as a means of prioritising high likelihood applications from speculative applications

Consultation Questions

NIRIG Responses to Questions in the Consultation Document

Question 1: Do you have any additional suggestions for consideration in relation to continuing to apply the existing connection application and offer process given the recent influx of connection applications received?

The process requires change due to the forced change of NIE's connection application process. The option of re-establishing the requirement for planning has not been discussed in the consultation paper but it is our preferred approach.

The likely timeline for the batch process is critical information to assessing the suitability of this approach to processing connection offers. Based on the flowchart in Appendix C of the consultation document and the experience of Group Processing in RoI (Gates 1-3), it appears it will take 2-3 years at best to process applications through the proposed batch process.

Investment decisions will need to be made in the short term to ensure the delivery of these essential investments. However if the batch process takes up to 2/3 years and it is a further 5 years before commissioning of new generation capacity it could be up to 8 years before any replacement generation capacity (or system services) can be relied on in Northern Ireland. If the alternative connection process does not work with the proposed ISEM arrangements there is a material risk that Northern Ireland will not be able to attract the essential investment in energy assets which it needs.

The closure of the NIRO for large onshore wind and the minded to decision in relation to small scale now restricts the volume of onshore wind projects which are capable of relying on the NIRO and there are no proposed replacement renewable support schemes. It is therefore highly likely that a large proportion of the connection applications which are currently in the connection process will not actually proceed as viable projects without support under the NIRO. NIE Networks and SONI should develop a mechanism to incentivise developers to withdraw applications for projects which are unlikely to progress.

Question 2: Do you consider that the underpinning principles of the proposed connection application and offer process at a high level address the approach necessary to deal with the influx of connection applications? Can you suggest any further principles that should be considered?

The legal rights of existing transmission and distribution capacity rights holders must be protected. Connection applications and modification applications which do not increase MEC are, as a matter of law, fundamentally different and accordingly must be treated differently. A connection agreement grants a Generator certain enforceable contractual rights, including the right to export electricity on to the NI System through the Connection Point at a level up to the MEC and the right to have a modification application processed within defined timeframes. NIE Networks have corresponding licence obligations guaranteeing such rights. In discharging these obligations, we acknowledge the need for NIE to have regard to a range of matters, including the matters set out in the consultation at questions 7-10. However, the fact that NIE must have regard to such matters in processing modification applications does not in any way diminish the primacy of the existing rights to capacity of connected parties.

We also propose the inclusion of the need to be consistent with energy policy (national renewable energy/low carbon targets, support the Strategic Energy Framework, support programme for governments and climate change legislation).
The process must also be compatible with ISEM market arrangements (DS3 auctions and RO auctions).

Question 3: Do you agree that the Batch Process is the most pragmatic alternative connection application and offer process to deal with the recent influx of applications? Do you have any other suggestions or specific comments on the proposed approach?

Some particular concerns with the proposed batch process are as follows:

- More detail is required on how NIE propose to allocate initial node and final node project assignments.

- In relation to 7.2.5, are the System Operators (SOs) proposing that if an applicant is moved from DNO to TSO that valid connection application date is reset, based on when TSO fees and information is supplied? We believe the valid application date should be set at the earlier application date.

- Batch Process should issue groups when completed and not wait to issue all in one go.

- SO should identify the minimum threshold required to allow shallow works to progress without re-study, this will allow for some certainty in relation to group member non acceptance of offers.

- Connection offers that include potentially an entirely different increased cost, dependent on group members actions, are non-viable and cannot be economically accepted on such basis. The proposed approach must substantially restrict the degree of variability.

- Need greater clarity on the interaction between SSG and LSG if they are to be included in the same groups.

Question 4: Do you agree with the proposal to remove all consenting requirements for transmission connection applications?

Energia is proposing that planning permission is a requirement for applying for a grid connection for all on-shore generation projects. Regardless of the offer process adopted, we feel that it is important that the requirement is the same for transmission and distribution generation. Energia is concerned that SONI will not currently accept applications to be put in the application queue. We feel that it appears discriminatory that only distribution applications can join the current queue for applications.

Question 5: Do you agree with the types of connection applications that are proposed to be included in the Batch? Please provide reasons for any views expressed.

The connection offer process should be for the allocation of new MEC capacity and any changes to installed capacity, or addition of new technology, should be managed through modifications to the existing connection offer and/or agreement. Connection applications and modification applications which do not increase MEC are, as a matter of law, fundamentally different and accordingly must be treated differently.

If NIE have concerns with the interaction of managed connections policy and over-installing MEC for embedded generation, this is unlikely to apply to all generation, for example generators connecting with dedicated 33kV connections to 110kV substations or transmission connected generation. Allowing over-installation for distribution connected embedded generation needs to be considered and policy provided as part of the managed connections consultation process

Energia believes that the following types of applications should not be part of the batch process:

- Applications for a zero export scheme;
- Applications to over install generation and cap MEC to the existing MEC of the current Connection Agreement;

- Applications for a change in Technology or additional technologies at an existing site provided there is no change to MEC;
- Remaining capacity at existing clusters should be allocated (whilst ensuring the legal rights of existing transmission and distribution capacity rights holders, up to their MEC, are protected)

Question 6: What do you believe would be an adequate length of time between a decision paper from this consultation process being issued and the proposed Closure Date? Do you agree that a 4-week period would be adequate? Please provide reasons for any preference.

Four weeks is adequate.

Question 7: Is there any information you can provide to describe how it is proposed that the over-installed plant, particularly in the case where there is a mix of generation technologies, is capped to MEC safely and securely?

The generator controller will manage and ensure that the MEC is not exceeded. For windfarm installations it is now common practice for the windfarm controllers to control the MW output of the windfarm. This is required as part of the grid code to allow the system operators to constrain or curtail windfarms for system reasons. Capping the export from the facility at the MEC is another function of the windfarm controller. There are multiple windfarm sites in RoI with over-installed capacity that have been operating in a safe and secure manner for a number of years. For hybrid technologies, the same principle of a generator controller managing the MW output and MEC of the overall facility will also apply (we would note that this level of control is already a requirement of the grid code for windfarm sites with MEC greater than 5MW).

It is important that NIE Networks and SONI design a connection process which is appropriate for the Northern Ireland system. The Grid Code and connection agreements have accommodated over-installation of generation capacity in the past. This has provided the system operator with optimised generation security as it facilitates redundancy in generator availability. For example at some of the power stations there have been substitution units which can be used if a generator unit fails however the Maximum Export Capacity was set at the installed capacity of only one of the two generating units. There are many examples of how control equipment is used to design an optimum system in Northern Ireland. It is very important that the NIE Networks and SONI do not overlook the system benefits realised from co-location and diversification of generation behind connection points.

Question 8: Is there any information you can provide to describe how it is proposed to limit the availability declarations from the generation site to the SEM and the SONI control centre via SCADA?

There is no reason why generators should not be able to provide any necessary information in the format which is required by SEMO/SONI. We feel that this has already been addressed in RoI and should not be an issue which has any material implication on connection policy.

Question 9: Please provide any information you feel could explain how, if there is more than one technology type on site, the generation behind the connection point will be reduced in the event of a system constraint or curtailment?

Generators have the technical capabilities to implement control systems to meet the requirements of SEM tie-break rules on curtailment. For hybrid sites this may require signals for the resource availability of individual technologies to be passed on to SONI via SCADA. As per question 7, the generator controller can provide the necessary functionality. A number of sites in ROI have also implemented a standalone/independent controller when 2 different turbine technologies exist on the same site and it is more appropriate to have a standalone master controller implemented. Northern Ireland has also had substitution units at conventional power stations so this is an issue which can easily be addressed.

Question 10: Are there any further considerations for the TSO and DNO before this type of connection can be facilitated?

It is acknowledged that there may be additional technical and/or market issues to be addressed for hybrid connections. NIRIG believe that these issues are really outside the scope of this consultation and are not relevant to decisions in principle that need to be made following this consultation. Resolving all these issues should not delay NIE/SONI permitting generators to over-stall capacity as part of the connection offer process.
EirGrid recently presented on a number of these issues at the ROI Liaison group meeting, Energia suggest that NIE Networks and SONI liaise with EirGrid to benefit from work done to date on this.

Question 11: Do you agree with the proposal for allocating any remaining Cluster capacity as a priority and issue these offers outside of the Batch Process? Can you suggest any alternatives for consideration?

- Energia agrees with this proposal. (whilst ensuring the legal rights of existing transmission and distribution capacity rights holders, up to their MEC, are protected)

This is one of a number of interim proposals that Energia supports.
FAQ should continue to be allocated on basis of the current date-order rules for allocating firm capacity.

In relation to offering part capacity to applicants if available this should be discussed with applicant before offer is made, as it may not be viable for applicant to accept part capacity

Question 12: Do you agree that a change may be required to the weighting of projects connecting into Clusters that have not submitted for planning permission and subsequent connection offers have expired or been rejected? Would you consider a weighting of zero for such projects to be acceptable?

Energia continue to support the Clustering connection policy and would like to see it continued to be rolled out for the connection of new renewable projects. Energia would agree that any projects that are not in planning should still have a weighting of zero for the implementation of the cluster policy. Any changes to cluster ratings should not impact any existing cluster with approval.

We note that there appears to be an error within this statement in the consultation document. "A weighting of 0.8 is currently assigned to projects that have submitted a grid application but have not submitted a planning application for the project." **We feel the weighting for these projects should be zero.** This weighting is not appropriate for applications to:

- over install generation and cap MEC to the existing MEC of the current Connection Agreement;
- change Technology or add additional technologies at an existing site provided there is no change to MEC;

which we have stated should not be part of the batch process.

Question 13: Do you agree that the proposal to order the transmission assessments of the Groups based on the Groups with the earliest individual Valid Connection Application is a practical approach? If not, can you suggest any alternatives?

- Energia would support this approach.

- More information required on how interacting groups will be assessed.

Question 14: Do you believe it would be a prudent approach in the first instance for the TSO to determine whether there is existing grid capacity and issue offers where there is capacity as a priority, accepting that other applicants not included in this phase 1 would need to wait longer for connection offers?

- Energia agrees with this proposal.

- FAQ should continue to be allocated on basis of the date-order rules for allocating firm capacity.

- Energia welcome that the transmission studies and request that they are completed as soon as possible.

Question 15: In relation to connection offer validity periods, what length of time do you suggest would strike a balance between giving customers enough time to consider the connection offer and not unduly delay starting to process the remainder of the Batch?

In the absence of renewable support mechanisms any new generation connections will need to rely on market revenues from the I-SEM (DS3 system services, Capacity Reliability Options, Energy Trading Arrangements). The connection policy and the proposed auctions for DS3 and Capacity (for example pre-qualification requirements and timelines) must therefore be designed to work together otherwise no party will invest energy assets in Northern Ireland.

Question 16: In order to reduce time, it is proposed to allow a period of 10 days from information on initial nodal assignment being provided for a decision to be made on whether to withdraw from an application from the process. Do you consider that the suggested 10-day period will provide an adequate balance between reducing delays and allowing high level decisions to be made by developers?

Energia agree that ten working days is reasonable.

Also an agreed level of refund for all applicants who withdraw after initial node assignment is completed should be agreed in advance to save SO time to determine case by case refund to apply.

Question 17: Do you believe that high level information on estimated nodal assignment, connection method, potential charges and estimated timeframes for delivery would be of value and enable a decision to withdraw early to be made?

Energia agree with this statement.

Question 18: Can you suggest any alternatives to ensure that customers are committed to their connection application?

Energia has proposed to revert back to requiring planning permission to apply for a grid connection following the necessary licence changes are put in place. This has been successfully proven to ensure customers are committed to their connection application.

Question 19: Do you agree with the proposal to share the costs of common connection assets between applicants on a per MW basis as described?

The charging of shared assets not included under the clustering policy were being developed under the NIE Project 40 project. Energia understood that

options were being developed for consultation. This consultation proposes only the per MW option. Energia also requests that rebate policy is developed as part of an overall review of charging policy.

The connection policy and the proposed auctions for DS3 and Capacity (for example pre-qualification requirements and timelines) must be designed to work together otherwise no party will invest energy assets in Northern Ireland. It is important that the commitments required from I-SEM and Connection Applications is not set at such a high level that it becomes a barrier to entry. The level and timing of any bond which is being considered should be considered.

Fundamentally a generator cannot be asked to sign up to a commitment to an entire nodal cost. The proposed approach of requiring a generator to accept a connection offer with a liability capped at the entire nodal cost is a showstopper for generation connection, and is not viable for a generator to accept an offer on that basis, or provide bonding to that level. A batch connection offer should be issued on the basis of a firm price, and any shortfall arising from other generators not accepting their offers should be covered by the electricity customer, as is the case under the current cluster connection arrangements

Question 20: Do you think Proposal A or Proposal B is preferable for entry into the FAQ list? Do you have any other suggestions for entry into the FAQ list?

Energia would support proposal A. Proposal A is consistent with the previous decision on the allocation of FAQ. Without FAQ information available, applicants will struggle to accept offers because of difficulty securing the finance.

Question 21: Would a connection offer for generators of 5MW and above without firm access assessment provide sufficient information for that offer to be accepted or for high level decisions on project viability to be made?

Energia is of the view that FAQ and ATR information is not immediately essential to be issued at the same time as connection offers under either one of the interim arrangements or under the batch process.

Question 22: Would a connection offer which does not contain GOR information provide sufficient information for that offer to be accepted or high level decisions on project viability to be made?

GOR information is essential to be issued with connection offers. Considering the potential for increased constraints, GOR information should be provided for all offers issued under the batch process. GOR is a key input to financing and is necessary for the evaluation of connection offers.

Question 23: Is it essential for GOR information to be issued along with FAQ and ATR information or is GOR information alone sufficient information for an offer to be accepted?

Depending on the decision on Question 20, it may be the case that an application will not automatically be provided with FAQ and ATR information. As per Question 22 GOR information should be provided for all offer issued under the batch process.

Question 24: Do you agree that the offer acceptance criteria outlined above strikes the right balance between ensuring that applicants are committed to their projects, without being too onerous that applicants will not be in a position to accept their offer?

Deposit payment upon acceptance of offer and staged payments required to keep NIE/SONI cash positive to continue connection works are normally sufficient to test developer commitment. Energia is concerned that the additional requirement for a Connection Charge Bond and Capacity Bond will make it unviable for developers to accept connection offers especially when added to the proposed requirements under ISEM for DS3 and RO auctions.

The requirements of bonds should be considered later in the connection process and the capacity bond should only be required after the project's associated ATRs have achieved regulatory approval.

Question 25: Do you agree that project milestones relating specifically to securing planning permission are required now that the planning permission pre-requisite has been removed for applications to the Distribution System? What do you believe to be an adequate length of time to secure planning permission after a connection offer has been accepted?

Energia proposed approach is to have planning permission required prior to applying for a grid connection. It is understood this would require a licence change to implement.

The timeline for securing planning permission is outside the control of developers and therefore this would need to be carefully considered. If a timeframe is required post offer acceptance to have planning permission one year is probably reasonable, assuming this has been flagged early in the connection offer process, also extensions of this should be possible on application if project is appealed / delayed in the planning process. Consideration of the requirements under ISEM (RO and DS3) is also needed.

Question 26: Do you believe that the outcome of the OFGEM milestone consultation in GB should be applied in Northern Ireland without further consultation?

No, that would not be appropriate as the factors that affect projects in Northern Ireland, including system operator policies and the regulatory regime, are different.