

Response to Utility Regulator Consultation

# **Review of Electricity Distribution and Transmission Connections Policy**

15 May 2017

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## 1. INTRODUCTION

- NIE Networks welcomes the opportunity to respond to the Utility Regulators consultation in relation to the review of Electricity Distribution and Transmission Connections Policy. As previously stated NIE Networks believes that this collaborative industry engagement is the best approach following on from the success of the “Contestability Working Group” and “Alternative Connection Application and Offer Process (ACAOP)”.
- These previous consultations provided industry engagement which have enabled market opening for connections greater than 5MW and provided an approach to utilise remaining network capacity for renewable generation.
- This response sets out NIE Networks preliminary thoughts to the Consultation however, due to the complexity of certain aspects of the paper and the challenging timelines outlined in section 3, NIE Networks will require further discussions with the Utility Regulator prior to the publication of a final decision and any issuance of potential licence modifications.
- Licence modifications relating to contestability need to be included in these discussions. NIE Networks will require adequate time to prepare for any licence modifications before these are implemented.
- As outlined by NIE Networks and SONI at various forums recently, including with DfE, UR and industry; there is now a very high level of generation connected and committed to connect to the transmission and distribution network, with some 1.2GW of applications for which there is simply no capacity to connect available.
- The putting in place of a robust process for considering applications beyond phase 1 will require the input of a number of key stakeholders, apart from NIE Networks and SONI, including DfE, UR and industry. Such process will not be in place in the short term and is dependent on the active participation of other stakeholders if progress is to be made. NIE Networks has highlighted this already at industry forums including RGLG.
- In fact, we are now approaching a ‘cliff edge scenario’, as taking account of the significant further time that would be required to determine any more transmission capacity based on the recent work under ACAOP Phase 1, we estimate that by the end of August 2017, NIE Networks will have no option but to issue notifications of refusals to make offers to some c440 applicants based on lack of capacity.
- It is our intention to work closely with all stakeholders including UR in resolving these important matters and we look forward to engaging UR on this response paper as soon as practical to ensure a full understanding of the challenges being faced.

## 2. CONNECTIONS NETWORK MANAGEMENT

### 2.1 Utilising Capacity

- As outlined by NIE Networks and SONI at various forums recently, including with DfE, UR and industry; there is now a very high level of capacity utilisation in terms of generation connected or committed to connect to the transmission and distribution network, indeed connected and committed levels now approach 1.8GW which in broad terms matches system maximum demand at just over 1.8MW. In addition, there are some 1.2GW of applications for which there is simply no capacity available. Furthermore as connected levels increase beyond 1000MW the level of constraint / curtailment increases.
- NIE Networks recognises the need for developing more innovative solutions to facilitate greater access to the distribution network for customers and have therefore proposed investing £10.5m during RP6 to develop a number of schemes to represent a 'business as usual' alternative to conventional higher cost network reinforcement. NIE Networks response to the RP6 DD will set out our views in relation to the UR's proposed funding for innovation and investing for the future. It should be noted that any innovative solutions approved will require a design, implementation and assessment before transitioning to business as usual.
- Regarding network planning and connection standards, many of NIE Networks' design principles are based on Engineering Recommendations and as such it would not be prudent to relax these standards as this could cause safety and/or stability issues for the network.
- In terms of developing innovative solutions, NIE Networks conducted a comprehensive 'Managed Connections' pilot arrangement for Small Scale Generation, carried out in close linkage with industry representatives through 2015/2016. This looked at the feasibility of utilising reverse power flow management at distribution primary substations to reduce connection costs. Such an arrangement was complex and, while the working arrangements and learning was excellent, industry concluded a managed connection approach was not financially viable for Small Scale Generation<sup>2</sup>. However the model of industry engagement might be replicated to test any other specific solutions that may be considered.
- NIE Networks will continue to look for opportunities to offer flexible connections. We expect this will be considered in line with overall energy strategy and as part of a wider industry engagement required to develop Phase 2 of the ACAOP decision paper issued on 31 May 2015 – i.e. with Phase 2 being a process to move forward following Phase 1 which will exhaust any remaining conventional transmission capacity.
- NIE Networks believes that the key to making real progress now is for DfE and UR to establish an Energy Strategy forum tasked with establishing a position on future capacity requirements and developing an action plan on that basis. NIE Networks is very willing to participate actively along with all relevant stakeholders in such a forum.

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<sup>2</sup> Further assessment could be completed to review the learning and application to Large Scale Generation.

## 2.2 Recovering Network Capacity

- NIE Networks initial view is that underutilisation of capacity occurs to a much lesser extent in Northern Ireland when compared to GB. This is largely due to the historic approach of requiring planning permission to be in place at the date of application to NIE Networks which led to the majority of generation projects being built out to match their MEC.
- The UR has requested that NIE Networks considers and reports on options for releasing capacity which is being persistently under-used, for both connected customers and new connectees. The options available to release capacity differ between those already connected and those seeking connection. Different considerations apply to each category, specifically a connected party holding a connection offer or connection agreement will have rights to capacity, depending on the terms of those documents, whereas a party yet to receive a connection offer may be subject to any terms that are reasonable in the circumstances.
- A related issue around holding capacity in the queue is where applicants have been allocated capacity in Phase 1 but have requested that connection offers are delayed. In certain cases this may be for a considerable period while they await possible future incentives.
- GB DNOs have trialled measures related to clawing back unused capacity. Where generators have connection agreements in place this has proved difficult with generators generally ignoring or refusing requests, or demanding that the DNO buy the capacity back. The feeling of the GB DNOs is that to force this issue further would require further powers/guidance from Ofgem – the current regulations (DCP115) require agreement with the customer. Altering the capacity charging methodology may also assist in releasing capacity.
- GB DNOs have had more success in dealing with applications currently in the queue through the use of milestones in connection offers. This has allowed the release of capacity from speculative and slow-moving projects. This is perhaps less applicable for NIE Networks since the lack of capacity on the transmission and distribution networks means that only projects with planning permission are likely to receive connection offers in Phase 1 of the ACAOP and as such these projects are likely to proceed.
- NIE Networks will review the process of issuing offers in relation to any amendments required to help recover under-utilised generation capacity in the future.

## 2.3 Building more Network Capacity

- This is a fundamental matter in relation to enabling generation connections. There is a large amount of generation already connected or committed to connect approaching 1.8GW which will broadly match system maximum demand. There is currently transmission capacity (assuming the N-S interconnector in place) for just 1000MW. This means that as the connected level increases towards 1.8GW there will be increasing levels of generation constraint / curtailment.
- As part of the Cost Benefit Analysis (CBA) for assessing transmission investment due consideration should be given to the impact of creating capacity against the operational restrictions (system balancing etc.) which may require an increase in curtailment / constraint

and any associated costs. Any system development plan should outline the renewable generation percentage the investment would return above the 40% 2020 target.

- NIE Networks welcomes the D5 mechanism to allow for additional investment to increase capacity and capabilities of the transmission system.
- NIE Networks recognise the need for the renewable industry to have a better understanding of the enabling network investment proposals, the investment decision making process and timescales to implement. This will involve a collaborative approach from NIE Networks, SONI, DfE and the UR.
- Beyond the committed level of 1.8 GW, above which NIE Networks currently has a massive number of connection applications in the Phase 2 queue of an order of c1.2 GW. Following the release of the remaining limited capacity identified in Phase 1, there will be no further capacity available to connect this 1.2GW of renewables, currently identified as Phase 2.
- The formation of a forum representing key decision makers is required as a matter of urgency.

## 2.4 Connections Charging Framework

- NIE Networks notes that the current legal framework allows connecting customers to pay for deeper network reinforcement on a voluntary basis and will consider this in future discussions with customers and allocation of capacity.
- NIE Networks' believes that the funding of primary network reinforcement where costs cannot be passed on to the applicant under the current framework must be addressed either through this consultation or provided through the RP6 FD.
- NIE Networks note that UR intends to engage further with the Department with respect to rebates in parallel to this consultation. We would request that these discussions include how rebates should be handled with respect to contestability in connections.
- As new and modified connections open up to contestability, in accordance with Regulations 5 and 5(b) of the Electricity (Connection Charges) Regulations (NI), a rebate would not apply where NIE Networks have adopted assets from an Independent Connection Provider (ICP) as we have not incurred the relevant expenses nor has an initial contributor made payment to us in accordance with these regulations. Any change to this arrangement would require an amendment to the regulations.

## 2.5 Cluster Connections Policy

- NIE Networks notes the support of stakeholders for the existing cluster methodology and the proposal for a working group to clarify the methodology. This is under consideration.
- As noted by UR and indeed other relevant stakeholders, cluster policy has brought very significant benefits to the connection of large scale renewables
- NIE Networks expects that more than 500MW of renewables will be connected via clusters by circa 2020

- NIE Networks has already been carried out significant work to identify solutions to the 2nd transformer matter referred at 1.40. However the priority is to provide for additional transmission capacity in the first place beyond the 90MW current limit set at all recent clusters.

## 3. CONNECTIONS PROCESS AND QUEUE

### 3.1 Planning Permission

- NIE Networks recognises the significant support from industry in the use of planning permission as a requirement for the submission of a valid connection application. History would suggest that this approach provides certainty that the project moves forward and reduces the likelihood of capacity hoarding. However pending the introduction of legislation to enable this NIE Networks is unable to reintroduce this requirement.
- However NIE Networks believes that planning permission should form a key milestone in determining whether a project holding a connection offer is in a position to require limited network capacity and that this aligns with the approach taken in GB.
- Due to the lack of capacity available on the network planning permission is currently used as a queuing principle to enable Phase 1 offers. Should connection offers be issued in the future to generation projects without planning permission NIE Networks will consider the use of a milestone approach ( in line with GB ) to determine the connection queue.
- However it is noted here that the use of planning permission itself as a criteria will not assist in addressing the acute capacity limitations on the network.

### 3.2 Prioritisation of connections

#### 3.2..1 NIE Networks' Network Development Initiatives Employing Storage Technology

- In the 'Investing for the Future' category of the RP6 Business Plan, NIE Networks has proposed funding to facilitate energy storage services (FESS), which is aimed at developing this type of prioritised connection. These projects will be developed by NIE Networks and will identify areas of the distribution system which would benefit the general consumer.
- Such projects would be initiated by NIE Networks and may defer other capital expenditure in that part of the network.

#### 3.2..2 Commercial Applications and the Connections Applications Process

- Any other project proposals that have been applied for through an application would be treated as a commercial customer project.
- NIE Networks recognises that prioritising any commercial project could be subject to challenge and will therefore require further discussions with DfE and UR in relation to when such an approach may be permissible. NIE Networks would require a process which enables the benefits to be quantified and can be applied to each case.

- To ensure a robust process is in place NIE Networks would propose a joint industry consultation with SONI which would outline the hurdles and benefits of that process.
- It should be noted that if an application did get priority in the queue it will still be subject to technical assessment and capacity or other restrictions could still apply.

### 3.3 SONI Offer timelines

- NIE Networks notes the UR's view that transmission connections can often be complex and, on occasion, more time may be needed for SONI to make an offer. Due to the lack of capacity on the transmission system and the interactions required the same is also true for distribution connections where there is a cumulative impact on the transmission network, and additional time allowed may negate the need for an extension application.
- For all distribution generation connection applicants, as per the ACAOP phase 1 process, a transmission assessment must be carried out by SONI to assess all generation, both connected and committed to connect, on the network in Northern Ireland. This assessment is reliant on information provided by NIE Networks and is required in order to allow NIE Networks to issue a distribution connection offer, should capacity be identified. It should be noted that building a model of all generation connected and committed to connect to the Northern Ireland network, along with an up to date analysis of the current generation application queue is an onerous and extremely fluid process. It is not practical to carry out such assessments on an application by application basis, thus NIE Networks have been working closely with SONI to update these assessments when sufficient clarity can be taken from the generation queue as to show significant movement in the queue that may indicate further capacity has become available and it would thus be practical to re-run the transmission assessments.
- Through the ACAOP Phase 1 process, it took approximately 9 months to complete the first iteration of this assessment and capacity release before there was sufficient clarity on the position of all applicants within phase 1 in order to re-run the assessment for what was described as phase 1 extension for those applicants further down the generation queue.
- NIE Networks' linkage with SONI and the considerable work required to complete these transmission assessments prior to the issue of any distribution connection offer along with the complexity of these assessments does not currently fit within the current 90 day offer timeline, hence the requirement for extensions.
- NIE Networks therefore proposes entering into discussions with UR regarding modifying the licence to provide for an alternative period for the issue of connection offers (currently 90 days) in certain circumstances.



## 4. CUSTOMER SERVICE, ENGAGEMENT AND TRANSPARENCY

### 4.1 Pricing Transparency

- NIE Networks recognises the importance of customer service, engagement and transparency for our customers.
- NIE Networks continues to complete internal customer satisfaction surveys in relation to the connections business. These surveys focus on a number of areas including the quotation process<sup>3</sup>. NIE Networks are encouraged by the feedback from customers and are seeking to make further improvements throughout 2017.
- Notwithstanding the score above NIE Networks continues to seek to improve in this area and will review its range of connection offers to ensure there is as much information as possible to support comparability with the charging statement. Ongoing surveys will enable NIE Networks to review the changes over time.
- NIE Networks note that the Quotation Accuracy Scheme applicable in GB relates to Single LV Service Demand Connections and Small Project Demand Connections only. This scheme forms part of the GB Guaranteed Standards of Service (GSS) for connections. NIE Networks considers that the introduction of guaranteed standards of service in connections should follow only after the market has been opened up fully to competition, and adequate time has been allowed for contestability to become established and to stabilise. NIE Networks view is that Contestability in connections will drive quotation accuracy as customers will be in a position to compare NIE Networks contestable costs with the costs provided by an Independent Connections Provider (ICP).
- As the market for new and modified connections opens up to contestability, NIE Networks intend to provide connections customers with a “dual offer” in line with our current standards of performance. A dual offer provides customers with a choice to proceed with NIE Networks carrying out “Full Works” or to proceed with NIE Networks completing the “Non-Contestable works only”. Where a customer chooses to proceed with the Non-Contestable Works only offer they will need to appoint an Independent Connections Provider (ICP) to carry out the contestable works. The dual offer will provide cost transparency relating to;
  - the work and costs of providing the new Connection
  - the charges for the Non-Contestable Works
  - the charges for the Contestable Works
  - the options the Customer has for accepting the “Full Works” quotation or accepting the “Non-Contestable work only” offer and progressing with an ICP for the contestable works
- By providing customers with a “dual offer” NIE Networks will ensure that customers are fully aware that the connections market has been opened to competition and there should be

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<sup>3</sup> On ‘ease of understanding your quotation’ the average score was 8.28 with 10 being ‘extremely easy’ – Q1 Survey results 2017

sufficient comparability between the contestable costs provided by NIE Networks and the costs provided to a customer by an ICP to allow the customer to make an informed choice.

- NIE Networks will voluntarily introduce standards post March 18 as being the most appropriate to a contestable market;
- “Dual Offers” will be issued to customers in line with our current standards of performance.
- NIE Networks will complete ICP design reviews for <5MW connections within 10 working days of receipt of all required information.
- NIE Networks will complete ICP design reviews for >=5MW connections within 20 working days of receipt of all required information.
- For complex projects NIE Networks reserve the right to extend this design review period.

## 4.2 Network and Generator Information

- NIE Networks is investigating the provision of further network and capacity information around both demand and generation in the form of a heat map. Any information published will require caveats that it is the best available information at a point in time.
- Distribution capacity for generation also needs to be viewed in a wider context where the transmission system is saturated. It is worth noting that GB DNOs issue offers where distribution capacity is available and follow the ‘Statement of Works’ process in relation to required transmission works.

# 5. EXTENSION AND CONNECTION OFFER REQUIREMENTS

## 5.1 Requirements to refuse a connection offer

- In relation to UR document section 2.4; NIE Networks understands that Article 32 of the Directive applies to ‘access’ to the network rather than ‘connection’ to it and therefore Section 2.4 is not relevant for the purposes of the consultation.
- While the UR is minded to align Article 21 of the Order and Condition 30 of the licence there isn’t a legal requirement to do so. Article 21 provides for exemptions to the duty to connect under Article 19 and these exemptions apply regardless of whether or not they are referred to in Condition 30 of the Licence. With respect to the exemption provided for in paragraph 5(a)(iii) of the Licence (breach of the Distribution Code) this is a helpful clarification of the role of the Distribution Code regardless of Condition 27 and removal of this exemption should not be considered by UR. NIE Networks notes that Condition 30 paragraph 5 of the Licence is consistent with Condition 12 paragraph 12.7 of the Standard Conditions of the Electricity Distribution Licence applicable in GB and believes that this should continue to be the case.
- NIE Networks notes the UR proposal at paragraph 2.37 that an economic test may be applied to a refusal of connection but shall require further information from UR on this proposal in order to provide a response to it.
- It should be noted that the existing legislative and regulatory framework dates back to 1992 when there was almost no requirement for the connection of distributed generation and

sufficient network capacity existed to connect load applications on a first come first served basis.

- The current challenges faced by NIE Networks do not, in any way, resemble the circumstances under which the current framework was drafted; therefore these challenges cannot be met by relying solely upon the existing legislative and regulatory framework without significant revision thereof.
- Instead the difficulties associated with connecting multiple generation connection applicants (which are at different stages of project development and may differ with respect to the generation technology to be connected) to a network which has limited capacity need to be resolved by the adoption of complex policies for connection queue management which have stakeholder support.

## 5.2 Proposed requirements and process for requesting and granting extension

- It should be noted that the Phase 1 capacity allocation process is inextricably linked with the securing of extensions for all applicants in the connection queue
- NIE Networks agrees that the current process for seeking extensions should be reviewed and that there should be more transparency where connection offers must be refused due to lack of network capacity. NIE Networks welcomes reducing the burden of multiple extension requests on all parties.
- Under the current process, all generation applications that wish to connect to the distribution system must be included in and undergo a full network transmission system assessment before capacity for the application can be identified (as per assessments detailed in ACAOP Decision Paper May 2016).
- As outlined in section 3.3 the process for allocation of transmission capacity is a complex and time intensive approach due to the lack of capacity now available.
- Any change to the current capacity allocation process will require an industry wide working group as mentioned previously in this document (see 2.1 Utilising Capacity) as the current process had been derived through intensive interaction with industry through the Alternative Connection Application and Offer consultation.
- An added complication to the current process is that SONI have identified that the current levels of uncontrollable generation are on or near the operational limits of the network<sup>5</sup>; this is an added challenge that will require collaboration between NIE Networks, SONI and industry through the suggested workshops.
- Should the provision of extensions to the 90 day licence standard change to become “the exception rather than the norm” then, without the appropriate time to consult / set up workshops with industry, DfE, UR and SONI on a change to the current capacity allocation process, the likely outcome of applying the current process without the provision of further extension for all applicants would result in NIE Networks requiring to refuse to connect all

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<sup>5</sup> Refer to section 3.6 of the Renewable Integration Status report:  
<http://www.nienetworks.co.uk/Connections/Generation-connections/Latest-updates/Renewables-Integration-Status-Report>

remaining applicants in the generation queue where capacity does not exist for their application before 31 August 2017

- In such scenario, applicants would not be able to wait and hold their queue position until the next iteration of the transmission assessment and as such may miss out on any capacity that could be identified in the next iteration of the transmission assessment. We would welcome views from industry on this approach, but realise that this may cause considerable frustration, especially to those applicants that may have some chance of being allocated capacity due to their queue position.
- NIE Networks suggest that further consideration might be given to the position on extensions in the short term before the current deadline is reached in August to enable appropriate time to address the complex capacity queuing principles and industry engagement.
- NIE Networks does not believe that the new process can be implemented to meet the current extension deadline of August 2017 and therefore it would be necessary to have a further extension of time based on the current process.
- Notwithstanding the concerns outlined above if the new process was to be introduced at a later date NIE Networks believes the 'Consultation' stage of the proposed new extension process is likely to be a futile exercise. If as expected there is no capacity available at the scoping stage then any consultation with the individual customer will not be able to address this issue.
- While NIE Networks disagrees with the proposal for a consultation, NIE Networks acknowledges the need at this point to engage with applicants to explain the reasons for the lack of capacity and the recently drafted 'capacity flowchart' will likely assist in this conversation. NIE Networks will continue to work to provide information to customers in an easily understandable format to help educate and inform applicants of related network constraints.
- With regard to the UR proposed approach NIE Networks would be concerned about the timescales detailed within the process. If all 3 stages are to be followed it could lead to difficulty in achieving extensions as stage 2 may need to happen around week 6 after application. Depending on the complexity of the application and any transmission impacts this may not be achievable. NIE Networks would welcome further discussions on this process and the associated timelines.

## 6. CONCLUSIONS

- Much has been achieved to date, for example in relation to generation connections, with some 1.8GW now connected or committed to connect, a staggering level equating broadly to system maximum demand.
- It should be understood clearly however that there is very limited remaining generation capacity across the network (i.e. an order of <50MW excluding that reserved at clusters) albeit that there are some 1.2GW (comprising some 300+ applications) seeking connection beyond the 1.8GW referred to above
- NIE Networks wishes to make clear that while certain steps including; innovative approaches as proposed in RP6, updated application criteria and legislative changes, might be considered to exhaust any remaining capacity which might exist across the transmission and distribution network for the further connection of generation, the fundamental matter of underlying capacity shortfall cannot be resolved by NIE Networks and SONI in isolation or in the short term.
- NIE Networks is supportive of a consultation on the process to justify further extensions of time to issue offers beyond August 2017. However the early implementation of the proposed extension process would have significant impact on the current phase 1 capacity allocation process and the generation connection queue.
- The timeline proposed to develop a process for engaging UR in further extensions to existing offer timelines by end August 17 is unmanageable.
- Unless UR grants extensions of time for the issue of connection offers NIE Networks will have no option but to issue notifications of refusals to make offers to some c400+ applicants based on lack of capacity.
- Should NIE Networks refuse to make a connection offer for lack of capacity the connection applicant will lose their place in the connection queue. NIE Networks acknowledges that this will create uncertainty and frustration for applicants who are in the process of developing generation projects.
- Should NIE Networks refuse to provide connection offers on the basis of lack of capacity this is permitted by Article 21(1)(c) of the Electricity (NI) Order 1992. No additional licence modifications are required to support the legislative exemption.
- To the extent that Licence Modifications may be required to enable any changes agreed prior to the end of August 17 it appears unrealistic to expect that such changes along with other process changes can be agreed and implemented and provide sufficient time for NIE Networks to engage a fundamentally different approach, for example in the arrangements for further extensions of offers
- NIE Networks would draw UR's attention to a number of areas where decisions appear to have been already taken for example the Licence changes at 2.34 and 2.35. NIE Networks is of the view that further consideration is required before final decisions are made.

- In respect of customer service, engagement and transparency; NIE Networks is committed to providing increasing levels of information; the introduction of voluntary standards and increased focus on its customer satisfaction ratings
- NIE Networks is fully committed to engaging positively in the appropriate forums in order to make improvements to all the current arrangements referred to above, and believes that an Energy Strategy Forum must be established with representation from DfE, UR, SONI, NIE Networks and Industry to progress decisions on future investment.