



Northern Ireland Electricity Transmission and Distribution Price Control Review

A Submission by SONI Ltd. to the Competition Commission

31 May 2013

Introduction

1. On 30 April 2013 the Northern Ireland Authority for Utility Regulation (“the Utility Regulator”) referred under Article 15(1) of the Electricity (Northern Ireland) Order, 1992 (“the Electricity Order”) the modification of the licences held by Northern Ireland Electricity (“NIE”) under Article 10(1)(b) and Article 10(1)(bb) of the Electricity Order for the Competition Commission (“the Commission”) to determine such amendments to the licences as *may be expected to operate in the public interest and in accordance with the principal duties and objectives of the Utility Regulator to protect the interests of customers and to secure that all reasonable demands for electricity are met* and that *licence holders are able to finance the activities for which they are licensed*. This is SONI Limited’s submission to the Commission in relation to this referral.

The role of SONI Ltd.

2. SONI Limited (“SONI”) is the holder of a licence to participate in the transmission of electricity under Article 10(1)(b) of the Electricity Order¹ and has the duty conferred upon it as such a licence holder under Article 12(2)(a) ‘*to develop and maintain an efficient, coordinated and economical system of electricity transmission*’. SONI was divested in 2009 in order to ensure that it operated independently of all generation and supply interests on the island of Ireland. SONI was acquired at that time by EirGrid plc., the licensed and certified Transmission System Operator in Ireland.
3. In April 2013 SONI was certified by the European Commission as TSO for Northern Ireland². As TSO, SONI is responsible for the real time operation of NIE’s transmission system which is made available to it for this purpose. SONI also has certain roles accorded it in respect of the planning of the Northern Ireland transmission network set out under the regulated Transmission Interface Agreement (“TIA”) between the parties and in interfacing and co-ordinating development with NIE in its role as Distribution System Operator.
4. The European Commission decision in respect of the certification of SONI requires the transfer of the investment planning function, currently carried out by NIE, to SONI. Therefore going forward it will be SONI, not NIE, who is

¹ The same Article as NIE

² COM (2013) 2170 – available at

http://ec.europa.eu/energy/gas_electricity/interpretative_notes/doc/certification/2013_059_uk_en.pdf

responsible for identifying both the need for and the preferred solution to problems identified on the Northern Ireland transmission network in order to meet its own statutory functions as a TSO as laid down in the European Directives.³

5. Given all of the above SONI has a particular interest in the outcome of the price control determination for NIE in enabling SONI to fulfil its own statutory and licence responsibilities, both current and prospective.

SONI's engagement to date as part of the process

6. As part of the NIE price control process SONI provided a response on 19 July 2012 to the Utility Regulator's Draft Determination on the Northern Ireland Electricity Transmission and Distribution Price Controls, 2012-17 and on 27 September 2012 in respect of the Approval Criteria and Incentive Mechanisms for RP5 Fund 3. These two responses are provided as enclosures to this submission and still stand as a representation of SONI's position in relation to a number of key issues.
7. In addition SONI presented at a number of the RP5 workshops held by the Utility Regulator and engaged in bilateral meetings with both NIE and the Utility Regulator throughout the process. As a result of its particular position in the industry and the interface between SONI's role, NIE's role and the Utility Regulator's role SONI brings a unique, and particularly rich, perspective to all of these issues.

The Overarching Objectives of the Control

8. In preparing this submission SONI has read and reflected on the initial submissions made by both the Utility Regulator and by NIE and on the Utility Regulators response to NIE's submission.
9. Both parties make many detailed arguments in respect of various aspects of the proposed control and the analysis supporting the positions that they hold. SONI does not intend to engage with or provide a view on the validity

³ E.g. Directive 2009/72/EC

or merit of these which are primarily a matter for the parties themselves and the Commission who will have access to the necessary information to assess them.

10. Rather SONI simply wishes to see that the outcome of the control process:

- Provides that customers pay that which is appropriate, no more and no less;
- Provides for the necessary investment to enable the NIE transmission system to continue to meet appropriate operating and planning standards such that SONI can fulfil its functions;
- Provides that the investment in the transmission system is financeable;
- Provides that that investment is delivered, and incentivised in its delivery, in a timely fashion;
- Supports and complements Northern Ireland's energy policy goals; and
- Endorses established regulatory principles, seeking to build upon and promote, as opposed to reduce, regulatory certainty.

11. If these outcomes are achieved then SONI believes the Competition Commission will have fulfilled its objectives as set out in paragraph 1 above. However SONI would urge the Commission to be mindful not only of the cost of delivering investment but also the cost in terms of value forgone from its non delivery. If network investments are in general NPV positive to customers then it would be unfortunate if the regulatory regime, or indeed regulatory allowances, were such that this NPV positive value could not be unlocked.

Incentives and Risk Management

12. Where possible, within the objectives set out above, SONI believes a relatively light touch incentive based approach to regulation should be adopted. This has been employed both in Northern Ireland and elsewhere and has served customers, including NIE's customers, well. It appears to SONI, and this was reflected particularly in SONI's response to the Utility Regulator's Fund 3 consultation, that all too often the prospect of uncertainty, combined with an element of risk aversion on behalf of both the regulator and regulated utility, cuts against a well functioning model.
13. Rather the regulatory framework must support efficient delivery and efficient delivery in the context of a world of uncertainty; failure to do so can lead to both slower than desired progress and ultimately sub-optimal results. This is particularly so if the regime has elements of *ex post* adjustment, with inherent risk of disallowance of 'inefficient' costs incurred (with the benefit of hindsight), but with a rate of return provided associated with a low risk guaranteed Regulatory Asset Base where it is assumed all investments will ultimately be both remunerated and repaid.
14. The rational, and risk averse, investor may not invest in such circumstances unless s/he is guaranteed to recoup that investment; the regulator may not sanction such investment unless s/he is satisfied beyond a reasonable doubt that the investment is required; the investment may only be required in the event that new generation or demand comes forward and which may not be in a position to do so unless they are confident the network will be forthcoming, and forthcoming in a timely fashion. A 'catch 22' situation can therefore arise.
15. This is not some hypothetical risk but rather a real risk which is actually occurring and crystallising in Northern Ireland right now. Unfortunately, while it is not the only factor, it is the regulatory model itself which can at times represent the blocker to the necessary investments progressing in a timely fashion.

The Value of an Overall Co-ordinated Approach to Network Investment

16. SONI therefore believes that it is important that there is overall co-ordination and optimisation of network planning and development. Such optimisation must not look at each project solely in isolation but recognise that it is a series of related investments, when delivered in totality, which ultimately in many instances represents the best overall solution.
17. Moreover in determining an investment programme which builds not only for today but for the future has the potential to deliver the necessary grid infrastructure at both a lower overall cost and with a lesser impact on the environment.
18. Essentially in making decisions today as to its longer term grid strategy, Northern Ireland is developing a flexible grid with an option value for the future and for the timely connection of future projects. It is the experience in Northern Ireland as elsewhere that the building of significant overhead power lines with the level of community engagement and statutory consenting which is both appropriate and required is a lengthy process.
19. An overall scenario based approach to appraisal must therefore be applied and decisions made on the best available information. Given there is uncertainty, risks will arise. It is important that these risks are appropriately allocated based on the party who can best manage them and be incentivised to do so. More often than not this is the regulated utility; however if the utility is to be allocated these risks it must also receive a rate of return and reward commensurate with them.
20. SONI notes that NIE has been asked by the Utility Regulator to review its network planning standards which will ultimately be one determinant of the necessary level of investment. Given the impending transfer of investment planning to SONI it is important SONI has a role reflective of its prospective responsibilities in this review.

The approach to the Cost of Capital and Financeability

21. Considerable text and argument has been provided by both parties in debating the appropriate cost of capital which should be accorded to NIE on its investments, both in the future and those already made. SONI is not in a position to comment in relation to these matters other than to state that the cost of capital should of course be that which is appropriate and consistent with the overall arrangements being financeable.
22. As in paragraph 11 above 'appropriate' in this instance should be that which seeks to maximise consumer welfare; a regulatory cost of capital is not appropriate if it is set so tight that in unforeseen circumstances (e.g. adverse financial market conditions) it thwarts what would otherwise be significantly NPV positive value adding investment for consumers; nor is it appropriate if it is overly generous. Regulators, and the Commission, must balance the risk of underinvestment from which they are seeking to protect consumers with the risk that consumers will pay more in returns than they need to, or ought.
23. To that extent SONI would not, and would assume that the Commission would share its view, subscribe religiously to the Utility Regulator's views re. the application of the *actual* cost of capital as to do so would in SONI's view, in an *ex ante* world, expose customers unnecessarily to the risk of underinvestment to their ultimate cost in the event market conditions were to move adversely.
24. There is also debate in the submissions as to the difference in the cost of capital today as compared to that at the time when the control was determined or indeed perhaps even earlier *should* have been determined. SONI believes it is appropriate that the Commission seek to assess what would have represented reasonable proposals to modify the NIE licence at the time the modifications were put to NIE as these are the proposals which were ultimately rejected, given what was known at that time, and which the regulator felt it appropriate to refer to the Commission for determination.
25. In relation to financeability it is clear that with a greater proportion of nominal returns being comprised of general inflation with relatively low rates of real return historically that the real nominal cash squeeze present in

the regulatory model will have a significant effect on regulated utilities such as NIE who are seeking to advance a significant investment programme. While equity injection is often advanced as the solution this is not a costless option and indeed only holds where real regulatory certainty as to the ongoing recoverability of the Regulatory Asset Base exists not just today and tomorrow but many years and decades into the future.

26. In its response document the Utility Regulator indicates that the real nominal squeeze could have been averted by NIE had NIE acquired greater index linked debt. While SONI can see how this would protect NIE from inflation risk it is not clear to SONI how acquiring index linked debt alone would lessen the impact of the real nominal cash squeeze.

The Importance of Transparency

27. The Utility Regulator has submitted the requirement for increased transparency in NIE's operations as part of this referral. SONI agrees. While the Regulator focuses on financial reporting SONI believes that should also extend to, in the case of reporting by NIE to SONI, investment programmes, maintenance undertaken, asset condition, system risks and network performance on both NIE's transmission and distribution networks. The regulator is proposing the use of a reporter. While SONI would not disagree with this in principle the terms of reference of the reporter would need to be understood and its use proportionate.

Summary

28. In this short submission SONI has set out why it has both a particular insight and interest in the outcome of the NIE Price Control. An inadequate price control for NIE may, through NIE's behaviours and response, impact upon SONI's ability to carry out its functions. An overly generous control outcome would involve consumers paying more than they need to and would be equally undesirable.
29. SONI has set out objectives it believes the control must ultimately fulfil and outcomes it must be capable of delivering. That it is now mid 2013 and that

this control was first due to take effect in 2012 is itself disappointing and has cast a shadow of uncertainty on the industry at a crucial time. SONI believes as part of its determination the Commission should both reflect and provide guidance on the process such that any lessons which there may be from the process can be learnt for future controls.

30. Ultimately while as a regulated utility in Northern Ireland SONI may have views on all aspects of the regulatory control it is ultimately in relation to its own statutory and licensed functions which it must return. To that end SONI has outlined in this submission and in its earlier responses the importance of clarity over the network investment programme and the necessary visibility and co-ordination of that investment programme not piecemeal but for the medium term. Whatever approach the Commission determines must provide for this.
31. We enclose copies of our two earlier submissions to the Utility Regulator as part of this process which still stand. We would be happy to engage further with the Commission should the Commission so desire.



Draft Determination Northern Ireland Electricity Transmission and Distribution Price Controls 2012 -17

A response by SONI Ltd

19th July 2012

Introduction and Background

SONI welcomes the opportunity to respond to the Utility Regulator's draft determination on the Price Control for Northern Ireland Electricity's Transmission and Distribution Businesses 2012-2017 (RP5). SONI is the Transmission System Operator for Northern Ireland and is responsible for operating a safe, secure and reliable transmission system in the interests of consumers.

It is critically important to SONI that NIE T&D has in place a price control which provides for the necessary investment to ensure that the transmission system continues to meet appropriate operating and planning standards such that SONI can fulfil its functions and that the investment is financeable by NIE and delivered in a timely fashion. It is also important that the control represents only the efficient level of expenditure and that consumers pay only what is appropriate. SONI supports the Utility Regulator's approach of seeking to ensure value for money for customers, ensuring security of supply by maintaining and developing a network that is fit for purpose and to facilitate sustainability in the generation and consumption of electricity. In this it is recognised there is a trade off between the cost consumers may face today and a fit for purpose network that supports sustainability in the long term. The current drive to meet enhanced renewables targets, much of which is sourced from lower densely populated areas, may mean increased strategic investment in the network but is part of an objective of delivering an overall value chain which benefits consumers and society.

This control is being consulted upon at the same time as the Utility Regulator, exercising its functions through the SEM Committee, is considering the certification of the current transmission arrangements in Northern Ireland under the European Third Package Directive EC 2009/72. SONI has elsewhere expressed its view that the current arrangements are not certifiable under the Article 9(9) test and that changes will be necessary if Northern Ireland is to be compliant. SONI endorses the draft determination recognition that changes may be necessary. The separate consideration of transmission and distribution revenue requirements is also important in this regard and the draft determination has made significant steps in this regard. Ultimately transmission should be considered as if a separate price control was in place for both transmission and distribution and this should be reflected in the final determination. This will facilitate any wider changes which may need to be made post the outcome of the certification process.

While this represents SONI's response to the consultation, given SONI's particular status, role and responsibilities in managing the transmission network in Northern Ireland, and its role as a member of ENTSO-e, SONI would expect to be involved in more detailed discussions on the investment plans that may be required with both the Utility Regulator and NIE. The Utility Regulator notes SONI's role in being able to provide an oversight of the lifetime costs of investments. SONI would note that much of the EHV investment associated with both renewables and interconnection is specifically excluded from consideration as part of the Draft Determination. SONI would expect to be part of a formal engagement with both NIE and the Utility Regulator further to ensure that what is ultimately required, and which is therefore also being assumed by SONI in progressing other activities within SONI's remit (see box below), is ultimately progressed and delivered in a timely and efficient manner.

An Adequate Transmission Network

SONI has highlighted above the importance of adequate and strategic investment in the transmission network. The NIE T&D control must make provision for network plans to be implemented, the network to be adequately maintained & allow sufficient resources and provide flexibility for the development of the network to accommodate the increasing variability in technology and number of connections

SONI and NIE currently interact to achieve / meet licence obligations via the Transmission Interface Agreement. Among other issues this Agreement deals with the exchanges of information required to establish the transmission investment plans that are required for SONI delivery of:

- a) The Seven Year Transmission Capacity Statement
- b) The Seven Year Generation capacity Statement
- c) Generator TUoS tariffs
- d) Transmission connections
- e) TUoS Agreements
- f) Firm Access Quantities
- g) Generator Output Reductions report

For all these processes to be effectively delivered by SONI a clear and concise knowledge of NIE transmission investment plans is required. In general SONI supports the 3-pot approach proposed by UReg as being appropriate although SONI often does not have visibility of the age and condition of NIE's assets and must therefore rely on them to prioritise the work appropriately. More generally SONI would have some concerns that, particularly regarding the proposals around Fund 3 (the significant transmission works), there is no forward looking clarity that meaningfully covers the five to seven year horizon required for SONI processes within the RP5 process.

Box – Some Effects of Absence of Visibility of Forward Investment on SONI Processes.

The Seven Year Transmission Capacity Statement

The SONI Licence Condition 33, Transmission System Capacity Statement requires, for example “a commentary prepared by the Licensee indicating those measures of which it is aware that are being taken (or are planned to be taken) to meet forecast peak demand on the transmission system”. A large proportion of this commentary would refer to the investment required by NIE to deliver transmission infrastructure to facilitate the connection and secure operation of renewable generation. If the Fund 3 expenditure is going to be approved on a Project by Project basis there needs to be an understanding in place between SONI, NIE and the Utility Regulator regarding the transmission “plans” that can be utilized on a seven year horizon.

Generator TUoS tariffs

The position with respect to forward looking strategic transmission plans is even more relevant to calculation of all-island GTUoS tariffs. The present approved methodology requires “approved” transmission developments on a five year horizon to be included. SONI would be concerned that year by year approvals of significant transmission projects may add to annual tariff variances for

certain generators. The document also refers to the possibility of a separate WACC for differing transmission asset categories. SONI would also need to investigate the potential impact this may have on the calculation of GTUoS tariffs.

Connection arrangements for generators

Under proposals presently being consulted upon SONI will be required to calculate transmission Firm Access Quantities (FAQ) for generations connecting to the distribution and transmission networks. This will require concise details of transmission infrastructure over a seven year horizon. The requirement is the same for calculation of Generator Output Reductions. It would be beneficial for SONI to understand how we can use NIE “plans” for inclusion in such processes so as to give sufficient transparency to connecting generators while respecting an arrangement between NIE and the Utility Regulator that allows for every project to be separately “approved”.

SONI believes that given its unique and independent position in the industry, it is uniquely placed to consider the total lifetime costs of the network investment and to plan a network which balances the ongoing costs of dispatch of out of merit generation and constraints with the lifetime capital and maintenance costs. This absence of such end to end assessment is a failing of the current industry arrangements. SONI notes that the Utility Regulator concurs with this assessment and advises that NIE T&D should work with SONI to determine the whole costs of deferring investments, including constraint costs. This would enable more robust investment appraisal to be put in place for transmission projects, however only a model of single accountability will ultimately deliver the optimum outcome. SONI is happy to work with NIE and the Utility Regulator in this regard.

SONI is owned by EirGrid plc which also holds the licence as TSO in Ireland. EirGrid’s TSO business has responsibility for network planning in Ireland and is currently developing a number of projects on a cross border all island basis with NIE to harvest most efficiently renewable electricity across the island and to support the SEM. It is important that a common all island approach is taken to the development of the transmission networks across the island and that neither the approvals nor price control arrangements pertaining in either jurisdiction run counter to or hinder the delivery of the most overall efficient or optimal solution. EirGrid looks forward to working with both NIE and the Utility Regulator in the delivery of cross border infrastructure between Ireland and Northern Ireland.

A Financeable Price Control

In addition to a price control which supports an adequate transmission network the overall arrangements must be financeable if this network is to be delivered to the benefit of Northern Ireland consumers.

SONI notes the Utility Regulator’s assessment of the overall financeability of its proposals in Section 18. It would in general have been beneficial had a financial model been made available to respondents as part of the consultation exercise. Even in the absence of a financial model it would be SONI’s assessment that additional equity will be required under the proposals if the level of interest cover and other financial metrics that are in general associated with an investment grade rating are to be maintained by NIE. EirGrid has previously highlighted its concerns on relying wholly on additional equity to bridge financing requirements. Elsewhere, where such an approach is employed, such as by

Ofgem for the Scottish transmission companies under RIIO-T1 it has resulted in additional provision for equity raising which can be worth the equivalent in some instances of up to 0.2% points on the WACC. It is therefore not a costless option.

The financeability of the T&D business is particularly stretched by the inherent cash squeeze in the current regulatory model through the application of real returns with an indexed RAB whereas debt costs must be met in nominal terms. Given the Utility Regulator's forecast of inflation expectations of an RPI of 3.35% at the notionally assumed gearing of 60% the basic model is only 'PMICR sustainable' to a ratio of 1.11 against the existing embedded cost of debt. This is below the necessary level. Therefore if NIE were to be geared at the level assumed by the Utility Regulator in its Weighted Average Cost of Capital assessment (60%) the proposals as set out would not be financeable in the absence of additional equity injection.

In the Utility Regulator's assessment of the WACC itself it has built in average RPI inflation expectations of 3.35%. These were taken from the Office of Budget Responsibility forecast paper in November 2011. The more recent OBR forecasts (March 2012) forecast an average RPI for the same period of c.3.15%. Thus, as SONI in general believes that the most recent inflation forecasts should be taken into account in setting the price control, in order to maintain the same nominal returns (which was the basis upon which the original real numbers were derived) the real Vanilla WACC must be raised by c.0.2% to leave both the utility (and the consumer) in no worse position. There is also a corresponding knock on in other parts of the control such as consideration of Real Price Effects and expected levels of real wage inflation. SONI and NIE continue to recruit at the UK and RoI market rates for engineering and IT resources. These numbers can be further updated with those in the OBR's November paper if this is available prior to the publication of the Final Determination.

On the parameters building up the real WACC, SONI would in general note that they are not far from recent regulatory precedent. However, it is important to understand and consider the WACC as only one part of the overall building block approach to the price control and that elsewhere where lower WACCs have been applied they have usually been levered or complemented by more high powered incentive schemes with an overall Return on Regulated Equity (RoRE) approach adopted. Further work remains to be done by the Utility Regulator in this regard. Furthermore, SONI believes a much fuller discussion should be held on the use of Debt Betas in the determination of the cost of capital and would note that the Utility Regulator itself is not consistent in its approach employing a debt beta here and indeed in the recent SONI determination but not employing one in the most recent assessment of the cost of capital for the BNE.

On the application of a differential WACC for new investment in renewables requirements SONI believes there is insufficient justification to suggest the WACC would be significantly different and indeed that the approach proposed is at variance with the Utility Regulator's earlier work commissioned from First Economics which suggested new investment was the riskier element of the business and that recovery of sunk investment in general the lower risk activity. SONI would be happy to discuss its points on both the WACC and overall financeability of the control further with the Utility Regulator team.

Conclusion

The RP5 determination is an important paper in setting out the revenue for the delivery of the electricity network as part of the overall delivery of Northern Ireland's policy goals under the Strategic Energy Framework. In this response SONI has stressed the importance of both an adequate transmission network, a financeable price control and one which ultimately delivers for consumers, both today and in the future.

As Transmission System Operator SONI has an critically important role to play and looks forward to further engagement with both NIE and the Utility Regulator in determining the necessary investments for the future. SONI has indicated the degree to which the current proposals, and some of the uncertainty concerning which future projects will be delivered, and when, impinges upon its ability to fulfil its current responsibilities. SONI expects there will be some changes in this regard following the outcome of the TSO certification process which is currently being conducted in parallel. SONI would welcome the opportunity to discuss this response and the arrangements around RP5 more generally with the Utility Regulator.



Approval Criteria and Incentive Mechanisms for RP5 Fund 3 – Investments for Renewable Electricity

A Response by SONI Ltd.

27th September 2012

1. SONI welcomes the opportunity to respond to the Utility Regulator's consultation on the Fund 3 investment process as part of RP5. SONI is the Transmission System Operator in Northern Ireland and the holder of a licence to participate in the transmission of electricity granted by the Department of Enterprise, Trade and Investment in exercise of the powers conferred upon it by Article 10(1)(b) of the Electricity (Northern Ireland) Order, 1992 ("the Order"). As set out in Article 12(2)(a) of the Order it is the duty of a holder of a licence under 10(1)(b) "to develop and maintain an efficient, co-ordinated and economical system of electricity transmission". The development of the necessary transmission infrastructure under RP5, and Fund 3 in particular, is therefore of considerable importance to SONI in the fulfilment of its role.
2. Visibility of the transmission investment programme is critical to enabling SONI to meet its licence obligations in respect of the granting of connection offers, providing information concerning available transmission access, calculating generator TUoS tariffs and producing the seven year transmission capacity statement.
3. SONI agrees with the Utility Regulator that it is important there is a cost benefit framework in place which justifies the overall development of transmission infrastructure. It is important however that this cost benefit framework can adapt to the current level of uncertainty in the evolution of the Northern Ireland network and Northern Ireland generation portfolio. We further discuss the management of this uncertainty in the accompanying box.
4. It is also important that the evaluation framework is reflective of the fact that the transmission arrangements in Northern Ireland are not currently carried out by a single entity but by two distinct and separately owned companies SONI and NIE, each with their own respective licence remit, with the only relationship between them being the regulated Transmission Interface Arrangements (TIA). If the framework as suggested by the Authority in this paper were to be implemented it would be incumbent upon the Authority to bring forward the necessary changes to the basic architecture of the arrangements to support it.
5. The cost benefit arrangements must be such that they do not in and of themselves become overly cumbersome and/ or have the potential to slow down the progress of necessary and NPV positive transmission investment. Moreover the cost benefit framework and the timeframe for its completion must dovetail with the other business processes which are dependent upon the visibility of the transmission investment programme including the provision of access and calculation of locational generation TUoS.
6. A number of the projects which are envisaged to be considered by the Fund 3 process are cross border in nature and must therefore take into account the obligations and responsibilities of parties in Ireland. The process envisaged should therefore be consistent with enabling all parties on the island (including EirGrid) to meet their own obligations and in a manner which ultimately delivers for customers.
7. The arrangements in general for the development of transmission infrastructure must also be consistent with the basic underpinnings of the industry arrangements as they pertain in Northern Ireland and across the island. SONI and NIE are obliged to offer terms for connection to the transmission and distribution system respectively and SONI must offer terms for use of the all island transmission networks to all connected parties. The Single Electricity Market is supported by a shallow connection policy whereby generators are accorded firm access on the completion of any Associated Transmission Reinforcements

(‘deep works’). The SEM, and the property rights arrangements which underpin it, are not currently consistent with the provision of enduring non firm access and in the event that the originally identified reinforcements are not ultimately progressed the generator is provided with the full Firm Access Quantity (FAQ) with consumers bearing the cost of any associated constraints in lieu of the avoidance of the infrastructure costs.

8. The assessment of the benefits of transmission infrastructure, and the cost of its non provision largely falls within SONI’s remit including:
 - the potential impact on energy price;
 - the provision of additional access;
 - balancing costs;
 - the need for system support services; and
 - non financial benefits including security of supply
9. Given this it is clear that it is SONI, as opposed to NIE, who is in fact better placed to carry out the sort of cost benefit analysis envisaged with the primary input from NIE being the identification of the proposed scheme and the provision of the costs of the proposed infrastructure. Equally SONI has a core role in the identification of requirements and specification of overall standards for the Northern Ireland transmission system as part of its general duty of operating a safe, secure and reliable system.
10. There are specific references to SONI’s involvement/ input to the Fund 3 assessment process. It is not clear to SONI how it is assumed that these will be fed into the process but include:
 - The need to understand the difference the assets will have on SONI’s ability to dispatch renewable generation in accordance with the grid code and associated market rules (page 13)
 - We would expect to see [NIE and] SONI prioritising investment where possible to reduce the constraint costs while maintaining security of supply (page 16)

These require further engagement with the Utility Regulator and may require the Utility Regulator to bring forward changes to the TIA and associated arrangements.

11. In relation to constraint costs it is important that there is clarity that in the case of building transmission infrastructure associated with generation connections and access arrangements that the incidence of these is split; while a proportion may fall upon the Imperfections charges paid by customers a proportion will also fall on the non-firm generators which are seeking the associated access rights (ultimately costing customers through either the need for higher rates of return to be paid to the generators to compensate them in equilibrium or in higher wholesale costs should the generator not proceed or not proceed as rapidly). Equally non provision of the associated infrastructure – either as a result of this evaluation process or for other reason outside of SONI’s control - will affect the dispatch balancing costs against which SONI is incentivised and this may need to be considered as part of that process.

12. The assessment of the need for transmission infrastructure, and the Fund 3 process, should be related to the assessment of transmission infrastructure alone; it is not an overall cost benefit assessment of the entire value chain as would be carried out by a central planner and is bounded by an obligation to connect all plant under licence and provide connection and access to renewable plant under the Renewables Directive regardless of that plant's individual location or technological make-up (s.t. meeting Grid Code obligations). It is the other work streams which have been progressed under the auspices of the SEM Committee, including locational Generation TUoS and the review of System Services, which provide the incentives to plant as to where they should locate or look at the requirements to support the portfolio which is expected to emerge. These again are within SONI's remit¹.
13. However the assessment of transmission infrastructure itself should be a societal one: that is it is the impact on production costs as opposed to consumer prices which matters, and the reduction in total constraints as opposed to simply those funded under the SEM arrangements. If the full societal costs are not taken into account then overall society, and ultimately consumers who comprise society, will be worse off. The sharing of the societal benefit between consumers and other participants is a matter for the underlying market arrangements but where there is societal value then Pareto improving solutions that leave everybody better off are always capable of being derived.
14. As with all investment decisions the decision to build transmission infrastructure should be made with the best information available at the time. The framework as proposed appears to suggest that there will be an *ex post* assessment also to determine whether the events forecast have actually transpired and incentives and returns calibrated accordingly. It would appear to SONI that such an approach has the potential to increase risk and therefore also to increase the cost of capital for the regulated utility investing. *Ex post* and retrospective regulation, or even with the potential of retrospectivity, is not in SONI's view best practice and incentives work best when the basic framework is well understood and clearly communicated up front.
15. As SONI has articulated in its engagement with the Utility Regulator in relation to TSO Certification, it is clear that an industry model which does not split the responsibility for the identification of network requirements from the party which can best assess their overall requirement (i.e. SONI) is clearly preferable and will deliver benefits to Northern Ireland customers.
16. The current arrangements under the Transmission Interface Agreement (TIA) are extremely limited in respect of SONI's role in network development. SONI can only operate within its own responsibilities under the current licensing framework and cannot of its own accord bring forward amendments to improve the situation to the benefit of customers. As we have outlined above the arrangements put in place must respect the fact that under the current, sub-optimal, arrangements the TSO tasks as set out in Article 12 of EC Directive 2009/72 are carried out by two distinct and separate entities.

¹ SONI notes the proposal of the Utility Regulator to utilise, and ask NIE to utilise, the Northern Ireland Guide to Expenditure Appraisal and Evaluation in its assessment of transmission infrastructure benefits. SONI believes it may be beneficial for the Utility Regulator to further consider whether straight line discounted cash flow analysis at a real rate of 3.5% sufficiently captures the benefits and option value of long term strategic transmission investments. In particular the Utility Regulator may wish to consider non linear discounting for longer term projects consistent with the emerging literature in the economics of sustainability and climate change.

17. SONI would urge the Authority to consider and bring forward such changes as are necessary consistent with its own remit of protecting final customers. Unfortunately the current arrangements fall well short of the ideal and impose needless additional cost on consumers. SONI would be happy to further engage with the Utility Regulator in this regard.

Box 1 Investment in Electricity Transmission Infrastructure – Addressing Uncertainty

The electricity arrangements in SEM are such that, with a shallow connection policy in place, the costs of transmission infrastructure are socialised among consumers. Generators are, however dependent upon the completion of associated transmission infrastructure in order to gain financially firm access in the current market arrangements which then protects them from constraint costs. If generators value this firm access, which they appear to do, then it is likely they will not be in a position to invest until such times as they know it will be granted to them; however, if the case for network build is dependent upon generators making ‘firm’ commitment to build then this certainty may not be forthcoming. Should this arise there is effectively the potential for a dual equilibrium (generation investment, network investment: no generation investment, no network investment) or Catch 22 situation to arise. This may be particularly problematic if the lead time to build new generation assets is considerably shorter than new transmission assets (which it generally is) and if the investments themselves are largely capital intensive, sunk and irreversible (which they are).

We know that situations characterised by large sunk and irreversible investment decisions are characterised by Real Options value and ‘value to waiting’². Yet this ‘hold up problem or absence of co-ordination can ultimately lead to sub optimal outcomes as compared to the situation developed by a central planner or social engineer. A key question which the Northern Ireland regulatory regime will have to address in advancing network build in the RP5 period and beyond is how this “hold up” problem and underlying uncertainty can be overcome. While it may not have the totality of the solution SONI is happy as part of this response to proffer some guiding points.

1. *Reduce the uncertainty where possible* – for example generators may be required upon signing connection offers to make binding financial commitments which can be drawn down in the event they do not proceed with the project. Indeed the regime in Northern Ireland whereby generators are required to have invested the time and money in acquiring planning permission prior to being granted a connection offer represents one such commitment mechanism.
2. *Signal a general intent in terms of transmission development* – while there is uncertainty in relation to the progress of specific projects the underlying natural resources and other factors driving the generation portfolio – particularly the wind portfolio – are well known and identifiable and the transmission developer can apply a diversification/ portfolio approach to the overall build. If the general direction of transmission build is well signalled but able to flex where necessary then enhanced confidence can be provided to new generation projects that the requisite network will ultimately be delivered should they proceed.
3. *Support the arrangements with other economic signals* such as locational signals associated with the cost of network provision and/ or dispatch.
4. *Recognise and allocate the associated risk profile* – it may be that in the value in waiting to determine the optimal investment for each project that the optimal programme as a whole is not ultimately delivered. There would appear to be a general concern that assets may not always be built optimally and that there is the potential for the ‘stranding’ of transmission assets should the assumptions made at the time of an investment decision not ultimately transpire. It may be some assets are not ultimately fully utilised but this risk should be weighed against a counterfactual of non development. The Utility Regulator must determine whether to allocate this risk to network utilities (with a need to reward them with an associated higher cost of capital) or to consumers (through the socialisation of the associated infrastructure costs in network tariffs).

² Dixit and Pindyck (1994) – *Investment under Uncertainty*: Princeton University Press

