

**Northern Ireland Electricity Limited**

**Utility Regulator's Consultation on Approval Criteria  
and Incentive Mechanisms for RP5 Fund 3 –  
Investments for Renewable Electricity**

**NIE's Response**

27 September 2012



## **1. INTRODUCTION**

Northern Ireland Electricity Limited (NIE) is the owner of the electricity transmission and distribution network in Northern Ireland and the holder of a 'Participation in Transmission' licence. NIE is regulated by the Utility Regulator.

NIE welcomes the opportunity to respond to the Utility Regulator's consultation paper which outlines the Utility Regulator's proposals for operation of the RP5 Fund 3 for capital investments in the electricity network associated with the integration of renewable generation, and the approval criteria and incentive mechanisms that would apply.

The overall objective of the consultation, which is to clearly set down the principles and the processes for the operation of Fund 3, is to be welcomed. However, given that the need to separate these renewables integration projects from other RP5 capital projects arises from their unpredictability and financial magnitude, care is required to avoid being unduly prescriptive in prescribing the details of the process to be applied in all cases. This is particularly important for the pre-construction stage of project development because this stage is exposed to the greatest degree of uncertainty and time delays arising from external influences outside NIE's control.

We respond below to each section of the consultation document. This response is supplementary to, and does not supersede, NIE's response dated 19 July 2012 to the Utility Regulator's draft determination for RP5. The Utility Regulator is referred in particular to Chapter 5 (RP5 Capex) and Chapter 12 (Weighted Average Cost of Capital) of, and Appendix 4A1 to, the 19 July response.

## **2. REGULATORY PRINCIPLES AND OBJECTIVES**

### **Specification**

The Utility Regulator refers to the Transmission and Distribution System Security and Planning Standards (the Planning Standards) used by NIE in the planning of electricity network developments. The Planning Standards are a key determinant in the identification by NIE of network investment required under Fund 3.

The Utility Regulator states that the Planning Standards were last updated in 1992. We note however that NIE carried out a formal review of the Planning Standards in 1999. This included a public consultation on NIE's review and a report was submitted to the Utility Regulator. At that time it was concluded that only a few relatively minor amendments were required.

The Utility Regulator comments that “these standards were originally drafted for networks dominated by conventional generation”. NIE acknowledges that the standards were developed when the majority of generation connected to the transmission system was of a non-renewable nature. But this does not mean that the current Planning Standards are no longer valid. The transmission system must be resilient to power flows under all credible contingencies, irrespective of whether those power flows derive from conventional or renewable generation. It is not clear from the consultation paper whether the Utility Regulator is suggesting a review of the Planning Standards or whether it believes a different approach may be appropriate. It would be helpful if the Utility Regulator clarified this.

It is also not clear whether the Utility Regulator, in discussing later in the consultation paper the need for a greater consideration of the impact of network development on wholesale markets, is proposing that wholesale market considerations should be taken into account. NIE’s Planning Standards have been developed and are reviewed in the context of compliance with NIE’s statutory duties and licence obligations. If the Utility Regulator intends to introduce a further layer of technical and design requirements as part of a wider remit, then it will be important that both NIE and the Utility Regulator work together to clarify relevant and applicable design standards at the earliest possible stage - such that we avoid future inefficiencies and delays in securing the required approvals for infrastructure project development. As noted in Appendix 4A1 to our 19 July 2012 response to the RP5 draft determination, a review of Planning Standards that is predicated on a fundamental change to the underlying methodology will require considerable work and will take a considerable time to complete. This may also delay the timely consideration of impending approvals in the interim.

The consultation paper states that NIE has started a review of Planning Standards in respect of transmission. Whilst NIE has initiated some work, this is not intended to be a review of all of the Transmission and Distribution Planning Standards or to reflect a fundamental change to the methodology currently adopted. The focus of this review is the security arrangements associated with the connection of new generation to the transmission system, including bulk supply point design requirements (e.g. single busbar versus double busbar).

The paper recommends that the "best available modelling techniques should be used to determine the assets to be installed". NIE considers that it already employs "best available" technology to carry out power flow analysis of the transmission system.

### **Delivery Schedule**

The paper includes the statement that customers “should not pay for transmission assets before they are providing a benefit to them” (paragraph 2.15). This suggests that costs for any given project may not be allocated to the RAB until after its operational date. If this is

indeed the intent, an appropriate alternative mechanism is required for the recovery of the funding costs that NIE will incur in the preceding period. This point requires clarification. In any case, it is not apparent why a different treatment should apply for transmission assets provided under the Fund 3 mechanism than for capital expenditure on other network assets.

The paper also states it is the Utility Regulator's intention to "incentivise NIE to develop the network in the optimum order" and makes reference to "the costs associated with constraining generation until the assets are delivered" (paragraph 2.16). Whilst it is reasonable and beneficial to include the prospective costs of extended market constraints within the scheme assessment process, it is not reasonable to have incentivisation measures that require NIE to accept risks associated with the delivery of reduced constraint costs, since these are outside the control of NIE and may change significantly with the passage of time and a changing mix of generation and demand.

### **Cost of delivering the assets**

The scope of Fund 3 is defined in paragraph 2.19 to include "any upgrade to the Coolkeeragh to Magherafelt line *required as part of RIDP*" (italicised emphasis added). This could imply either that the upgrade of this critical overhead circuit must either be shown to be required as part of the RIDP<sup>1</sup> / Network 25 plan or that the required asset replacement / upgrade costs will have to be divided such that only the marginal "upgrading element" should be included within Fund 3 with the remainder being treated as asset replacement (and potentially included within the Utility Regulator's proposed Fund 1 – notwithstanding NIE's objections to the Fund 1 proposal as set out in its 19 July response to the RP5 draft determination). This has not been NIE's understanding to date and the Utility Regulator's intent requires clarification. For the avoidance of doubt, as no provision for asset replacement of the Coolkeeragh to Magherafelt line was included elsewhere in the Utility Regulator's RP5 draft determination, NIE understands that the entire costs of the upgrade to the Coolkeeragh to Magherafelt line, whether driven by asset replacement or other investment drivers, are to be considered under the Fund 3 mechanism.

The Utility Regulator proposes that funding will be subject "to the delivery of the specified functionality". In this context, what is meant by "functionality" is unclear and should be clarified. Once the project is approved, NIE would see its role is to implement the network development specified in the approval. On that basis, "specified functionality" would therefore be defined, for example, in terms of the network capacity or rating specified in the approval of the investment, as implemented through physical development of the network. It would be unacceptable to NIE were funding for network development to depend on the subsequent utilisation of assets or other market related conditions which may emerge ex-

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<sup>1</sup> In any case, NIE would suggest removal of the RIDP reference altogether because the RIDP proposals will not emerge until after completion of the Network 25 and associated SEA.

post and are outside NIE's control. We note (at paragraph 2.21), the Utility Regulator refers to the need to take account of wholesale market costs in the assessment of investment costs. NIE's views on this are outlined in our response to section 3, in discussing the scope of incentives and, section 5, demonstration of need.

Paragraph 2.19 also proposes that "costs beyond the ceiling price will only be considered if they could not have been reasonably foreseen by a competent network developer". NIE does not consider this to be the appropriate criteria to apply because it could imply that NIE should bear the risk for cost increases beyond its reasonable control. For example, while the potential for delay in obtaining planning consent could be reasonably foreseen, its impact on cost could vary considerably due to events that are beyond NIE's reasonable control. This would leave NIE exposed to potential uncontrollable cost increases exceeding the approved "ceiling price".

The Utility Regulator proposes a separate RAB and WACC for Fund 3 costs; and in its RP5 draft determination has proposed a reduced WACC for Fund 3 projects. NIE does not consider renewables-driven investment is less risky than investment in other transmission and distribution assets and has set out its objections to a reduced WACC in Chapter 12 of its 19 July response to the RP5 draft determination.

Paragraph 2.20 proposes that NIE produce a "cost report" for each investment proposal which should "detail the impact that the investment will have on customers". It is not clear whether the scope of this report is wider than detailing the impact on customers. For example, does it provide the means for NIE to establish a case of need for the investment based on its statutory and licence obligations, as described by the Utility Regulator in section 5? We provide our views on "demonstration of need" in our response to section 5 below.

Furthermore, this "cost report" is presumably to be prepared and submitted as part of the process for seeking construction approval, at which point the pre-construction outturn costs will be known and the construction costs will have been determined. However, the proposed timing of this report should be clarified by the Utility Regulator.

### **NIE T&D ability to finance network**

Paragraph 2.25 references the intent that allowances should be sufficient to cover the "efficient costs" of undertaking the development.

NIE has proposed a "baseline allowance" to provide for the fixed costs of those NIE resources that will be engaged in "preliminary development" activity associated with the renewables infrastructure investment programme. However, it should be noted that our expectations of the scope of work involved, and therefore our resource estimates, were substantially different from the more complex process now proposed by the Utility Regulator

in this consultation. The Utility Regulator's draft determination for RP5 has indicated that 21 full time equivalent staff are sufficient for this purpose, and an associated opex allowance is being determined as part of the overall price control. This allowance would need to be reviewed in the context of the process that is now proposed and the RP5 price control should include a specific term to cover such additional costs should they arise.

For the avoidance of doubt, (as noted further below) this baseline opex allowance is applicable only to the recovery of those costs associated with NIE resources required for "preliminary development" activity. Any further "pre-construction" or "construction" stage expenditure must be allowed for as additional marginal expenditure above the level provided for within relevant opex allowances. Such approval should provide NIE with the flexibility to utilise its staff on a part-time basis on either "pre-construction" or "construction" activities. This approach is often more cost efficient than applying dedicated or external resources to carry out this additional work.

In contrast, the Utility Regulator has applied a "50% rule" in considering Dt expenditure under the RP4 arrangements, which provides for the cost recovery of only those staff who expend more than 50% of their aggregate annual time on renewable infrastructure projects. NIE contends that this approach should not be applied by the Utility Regulator in the operation of the RP5 Fund 3 process in order to provide NIE with the flexibility to deploy internal resources where this is the most cost effective approach.

Paragraph 2.26 indicates the expectation that NIE should "share some risk related to the estimation of pre-construction costs". NIE does not believe that it is efficient or desirable to require NIE to undertake financial risk in association with pre-construction development. This is discussed further in our response to section 4 below.

#### **Costs only recovered once.**

NIE accepts the rationale (within paragraph 2.27) that all "preliminary development" costs shall be deemed to be provided for within the RP5 opex allowance(s). However, it should equally be recognised, as noted above, that all incremental costs associated with resources employed for either "pre-construction" or "construction" activity shall be recompensed through additional project specific allowances. This means that resource costs are covered only once, as stipulated, albeit that particular individuals may expend differing proportions of their time on different activities.

### **3. PROCESS OVERVIEW**

The process for the approval of investments set out by the Utility Regulator in section 3 of the consultation paper appears to be logical. However, in practice, it will be crucial for the

Utility Regulator to commit to a timely process with defined milestones for consideration and response to approval submissions, so that the approval process can operate efficiently and transparently.

### **Pre-construction work**

Reference is made in paragraph 3.6 to cost benefit analysis: it is not clear whether it is proposed that this analysis be undertaken by the Utility Regulator or NIE. This should be made clear.

In paragraph 3.7, it is noted that the Utility Regulator's Board will make the "final decision" in relation to construction approval. Bearing in mind that such approvals will involve construction projects with a range of values, NIE would suggest that the approvals process (and associated requirements) should be tailored accordingly to ensure the process can be progressed as efficiently and timely as possible. In this respect, it would be normal for delegation of authority for approval of projects of lower value to avoid the need for the Board to consider approval of every submission.

Also, as a matter of due process, in circumstances where approval is not granted, NIE would like an assurance that it will be provided with adequate reasons for any such decisions made by the Utility Regulator.

### **Post project review**

Paragraph 3.10 refers to the process for post project review of any efficiency incentives or any other performance criteria established on a project by project basis. This suggests a process by which incentives will be calculated after one full year of operation. NIE does not believe it is appropriate that incentivisation should be based on outcomes that may vary because end-users or market participants do not make use of the asset in the way or to the extent that was initially envisaged. Such deliverables are outside NIE's control and therefore should not form part of the incentives associated with its development of the network. Rather, NIE's incentivisation should be established and measured by reference to the key deliverables that are more readily under NIE's control, which are principally the final cost and schedule for delivery of the specified network development project.

It is NIE's view that the Utility Regulator's assessment of performance against incentives should follow immediately after construction is complete and all costs have been confirmed, with any incentive payment made as soon as practical thereafter.

NIE notes that the consultation paper does not specify the process by which incentives or performance criteria are to be agreed. This requires clarification.

Furthermore, NIE notes that the Utility Regulator makes no reference within the consultation paper to an appeals or arbitration process that could be followed in circumstances where NIE or another interested party is not satisfied with a decision made by the Utility Regulator. This may include for example, decisions taken in approving or not approving investment or the operation of an associated incentives mechanism. NIE would request that the Utility Regulator considers the merits of including an appeals mechanism to help ensure the Fund 3 process is in line with transparent, consistent and accountable decision making. This is particularly important in the context of the Fund 3 process because it sits outside the normal price review process (and the appeals mechanism therein) and because the Fund 3 process cannot be defined exactly at the outset of RP5 because of the need to leave sufficient flexibility to consider each investment proposal on a case by case basis.

#### **4. APPROVAL OF PRECONSTRUCTION COSTS**

The pre-construction stage is exposed to the greatest degree of uncertainty and time delays arising from external influences. Therefore, if the overall process is to be given the best chance of delivering efficient outcomes for all stakeholders, it is essential that NIE be afforded reasonable flexibility in respect of management of the process and cost recovery throughout a development process that may evolve substantially over time in order to respond to external challenges and changing circumstances.

##### **Need**

Under paragraph 4.4, NIE would have expected some reference to DETI's Strategic Energy Framework as a consideration in the Utility Regulator's assessment of need for network investment to support the connection of renewable generation.

##### **Cost**

Paragraph 4.13 makes reference to "the sharing of risk between NIE and customers appropriate for the project." NIE's 19 July response to the Utility Regulator's RP5 draft determination makes it clear that NIE does not believe that it is efficient or desirable to require NIE to undertake financial risk in association with pre-construction development, owing to the large range of factors outside of the reasonable control of NIE. Furthermore, as recognised by the Utility Regulator in paragraph 4.16, the application of incentives in the pre-construction phase can create perverse outcomes leading to higher construction costs, which is neither efficient nor desirable for customers. NIE has instead proposed that the Utility Regulator be kept fully apprised of pre-construction development progress, and that additional allowances will be sought if and when the circumstances prove them to be necessary and reasonable.

Paragraph 4.15 refers to the approval for pre-construction costs including “how the costs are to be accounted for (expensed or added to the RAB).” NIE understands that approved “pre-construction” capex allowances will be passed through to the customer in full, but that capital costs may only be added to the RAB if the relevant assets are actually constructed. Otherwise, the relevant and approved pre-construction costs will be re-allocated to opex and treated as a permitted pass through for the year in which they were incurred.

### **Role of the reporter**

In its 19 July response to the Utility Regulator’s RP5 draft determination, NIE has set out its views on the proposed use of a Reporter in RP5. NIE remains of the view that the Reporter is not required or appropriate and that the terms of reference for his work in respect of Fund 3 will only serve to increase costs and to reduce the overall efficiency of the process.

## **5. APPROVAL OF CONSTRUCTION COSTS**

A key output from the “pre-construction” stage for each project, as determined on a case by case basis, is that NIE will deliver a “construction proposal” to the Utility Regulator, which may include the estimated costs and proposed terms for cost recovery and incentivisation as appropriate to the project under consideration. Proceeding to the construction stage is dependent on there being mutual agreement on the relevant terms. It is therefore important to establish the principle that NIE shall not be obliged to proceed with construction and delivery of any given project without agreement of terms.

In section 5, the Utility Regulator makes reference to NIE awarding contracts for the purposes of Fund 3 construction works. For the avoidance of doubt, while outsourcing of these works may be required in many cases, NIE reserves the right to employ its own resources (including NIE Powerteam) when appropriate in carrying out construction works. NIE has set out its position in respect of NIE Powerteam in Chapter 3 of its 19 July response to the RP5 draft determination.

### **Costs (including contingencies)**

Paragraph 5.12 suggests that the costs for construction are required to be determined in accordance with a procurement strategy designed to achieve a required balance between costs and risks commensurate with the investment return that is allowed for Fund 3 projects. Whilst this is reasonable in theory at a high level, NIE considers it is impractical and undesirable to disaggregate individual project risks and attempt a “risk normalisation” process that seeks to place every possible project on an equal footing in regard to an overall risk profile. Any attempt to do this would introduce significant complexity and delay, and is unlikely to prove beneficial in practice owing to the inherent uncertainties involved. NIE proposes that the overall balance of risk and return should instead be a fundamental part of

each construction assessment by the Utility Regulator, with each project being taken on its merits at the time.

The concept of a “risk log” is introduced at paragraph 5.13. The analysis of risks, and the most appropriate means of mitigating their effects, is a fundamental part of any major construction project proposal - and the use of an appropriate contingency provision is widely used as part of any such risk mitigation strategy. Whilst NIE would expect to justify the nature and extent of any proposed “contingency” provision, we would suggest that it is unwise, impractical and inappropriate to require a prescriptive approach to the calculation of contingencies.

It is true that for major construction projects that are proposed within the structure of a special purpose investment vehicle and subject to a full “banking review”, the adequacy of the contingency will be measured against a statistical assessment of the risks identified in the project risk matrix, and the extent to which the project company is exposed to variations arising. A “banking” approach will pass all major quantifiable risks to EPC contractors or insurers – and will call upon parent company guarantees or regulatory adjustments for recourse in the event of other non-insurable / sovereign risks etc. Such an approach would be used to ensure that the project contingencies (and or the debt service cover ratios) were appropriate to cover the evaluated risk exposures and insulate the debt provider from residual risk as far as possible.

Major project financed construction projects will not achieve “financial close” until all of the risks can be clearly identified and parked with appropriate contractual counterparties as described above. However, utility projects of the kind envisaged under the Fund 3 process will not be capable of this degree of precision because the projects cannot necessarily park these risks with other parties (and it may be prohibitively expensive to attempt to do this). It is also the case that since Fund 3 will embrace a portfolio of separate projects, the overall customer exposure to risk will not justify the additional cost premium inevitably associated with passing all of the identified risks to third parties (and especially in circumstances where those third parties are genuinely unable to contain these risks).

### **Demonstration of need**

NIE acknowledges the Utility Regulator's need to understand what is referred to in paragraph 5.19 of the consultation paper as the "directly measureable financial costs and benefits" of a project and notes the statement (paragraph 5.21) that the Utility Regulator “expects [NIE] to have considered the impact on the wholesale market“ in any submission for approval of a project. However a requirement on NIE to consider the impact of network development on the wholesale market should not be regarded as falling within NIE's duty to ensure that the T&D system is efficient and economic. For the practical reasons given below

this duty on NIE can relate only to the “physical” T&D network and not to the wholesale market arrangements.

For transmission network planning purposes, SONI provides NIE with planning assumptions which set out the dispatches that the transmission system will be required to cater for. NIE's responsibility is then to ensure the development of the most efficient and economic electrical system to facilitate the resultant power flows, set against the security requirements detailed in the Planning Standards. The implications of the extent and timing of proposed transmission developments on the wholesale market is outside of NIE's licence responsibilities. That is not to say that such considerations are not included in the above process, the point is that they are taken into account by SONI. SONI has the role of assessing the impact on the wholesale market and through this, has the scope to review and revise its planning assumptions. This then should allow for optimisation in terms of network and wholesale market considerations.

Nevertheless, as indicated previously NIE understands the Utility Regulator's need to understand the impact of transmission development on the wholesale market and would consider including a much more detailed analysis as part of any approval submission. This analysis will however need to be carried out largely by SONI and they would need to be obligated to do so under the Transmission Interface Agreement (TIA). Depending on how this information is provided by SONI and how it is required to be assimilated into NIE's approval submission, this would most likely require NIE to expand its resource capacity and planning expertise. The RP5 price control should include a specific term to cover such costs should they arise.

### **Cost Benefit analysis**

The Utility Regulator's consultation paper proposes two phases of cost benefit analysis. The first relates to an analysis of "directly measureable financial costs and benefits". The second covers non financial costs and benefits. The consultation proposes that this analysis will be carried out by Utility Regulator based on information provided in the approval submission from NIE. It is not clear how a conclusion by the Utility Regulator that a proposal that it considers is not justified in terms of its cost benefit analysis is to be dealt with subsequently. In submitting a request for approval, NIE will be stating a case of need based on it being the most efficient and economic investment to develop the network in line with NIE's licence planning standards. If the Utility Regulator decides not to approve that investment, then this will leave NIE non compliant with its licence unless there is intervention to prevent the power flows that would otherwise occur. This could potentially be achieved by SONI changing its planning assumptions, however the process proposed by the Utility Regulator needs to address this uncertainty. At present the process chart in Figure 1 indicates that non approval

simply results in a “rerun” of the approval process. However, it should be incumbent on the Utility Regulator to define to NIE and SONI the basis upon which the approval submission needs to be modified to make it acceptable.

## **6. INCENTIVISING EFFICIENCY**

The Utility Regulator proposes that incentives should be applied for the efficient management of costs and timely delivery of the project. NIE does not disagree with this concept. However, the process for the design, calibration and agreement of the incentive mechanism (which has not been set out in the consultation paper) will be essential to the practical application of this concept to what in many cases will be complex and unique projects.

If, as the consultation paper suggests, incentivisation is to be designed to influence NIE’s efficient management of the project, then it follows that the scope of any such incentives should be limited to factors that are actually within NIE’s control to manage. Otherwise, the mechanism loses its incentive properties and simply becomes a means of sharing uncontrollable risk between customers and NIE.