

Anna Rossington  
RIIO-ED1  
Ofgem  
9 Millbank  
London  
SW1P 3GE

Paul Whittaker  
UK Director of Regulation  
[Paul.whittaker@uk.ngrid.com](mailto:Paul.whittaker@uk.ngrid.com)  
Direct tel +44 (0)1926 65 3190  
[www.nationalgrid.com](http://www.nationalgrid.com)

26<sup>th</sup> September 2014

Dear Anna

## **RIIO-ED1: Draft determinations for the slow-track electricity distribution companies**

National Grid Electricity Transmission plc (NGET) welcomes the opportunity to respond to the above consultation. The consultation raises a number of issues that are of relevance to NGET and we set out our views below and in more detail in response to the specific questions raised in the consultation in the attached Annex. This response is on behalf of NGET and it is not confidential.

### **Interactions between Distribution and Transmission**

We have recently briefed Ofgem on our emerging understanding of the factors which are behind the trend over recent years in relation to high transmission system voltages at certain times. We have been working closely with DNOs over recent months to determine the multiple causes of this. While further work is required to understand the issues and causes on a site specific basis, it is now clear that a significant contributing factor is the increasing levels of embedded generation on the DNO systems; other factors include changes in demand patterns, increased use of underground cable, and the DNOs' losses reduction strategies.

So far as we are aware, no DNOs have included within their business plans any forecasts of expenditure to remediate the problems being experienced (nor could they reasonably have been expected to do so given the very recent development in our joint understanding of its causes, extent and impact). Indeed it is still generally too soon to have confidence regarding the site or region specific causes and the most economical remedies. As a result our view is that Ofgem should give consideration to arrangements under RIIO-ED1 that will provide a potential route for funding DNOs where (following completion of the necessary analysis) it is demonstrable that investment on the DNO network is the most efficient and economical approach. We have addressed this issue in a little more detail in response to Question 1 of Chapter 2.

We are continuing to work with DNOs (e.g. via the Network Innovation Allowance funded "REACT Project" as well as through routine liaison meetings) to understand more fully the issues and address their implications.

This is a clear example of the interaction between transmission and distribution networks and so in relation to the ED1 draft determination it is essential that any incentives are considered on an holistic basis. It will not be in consumers' interests if in response to an Ofgem incentive on DNOs to reduce system losses, they respond by e.g. raising 132kV system voltage targets. This could then result in NGET having to undertake significant investment in voltage control equipment on the transmission system, or use operational techniques such as SGT tap stagger to reduce transmission voltages – both of which increase transmission system losses, thereby negating the benefit of any reduction in DNO network losses and potentially increasing costs for consumers overall.

### **General Regulatory Principles**

While the regulatory principles which Ofgem propose applying for RIIO-ED1 are not of direct relevance to NGET we do have a number of general observations which we have set out where relevant in response to some of the specific questions identified in the consultation.

Ofgem has made changes to their modelling approach. At the same time the slow track DNO business plans have been revised. Ofgem needs to re-run their models to demonstrate how all the DNO (including the fast tracked companies) perform against the new modelling approach. If it is the case that the fast tracked companies are not at the efficiency frontier then this raises some important questions regarding the benefits that consumers obtain from providing a fast tracked company with a number of financial benefits (funded by consumers) for delivering performance that does not in the event turn out to be at the efficiency frontier.

We are happy to discuss our views contained within this response further should that be helpful. For further details, please contact Andy Balkwill on 01926 65 59 88 or [andy.balkwill@nationalgrid.com](mailto:andy.balkwill@nationalgrid.com).

Yours sincerely

*By e-mail*

Paul Whittaker  
UK Director of Regulation

## Annex

### RIIO-ED1: Draft determinations for the slow-track electricity distribution companies: Responses to the specific Questions

*Question 1: Do you think our assessments for each of the five criteria are appropriate?*

Process: Has the DNO followed a robust process? Yes, we believe that they have and we continue to engage with all the DNOs through various forums including the JTPMs.

Outputs: Does the plan deliver the required outputs? In general we believe the plan will deliver the necessary outputs, however please note our comments elsewhere regarding the importance of an holistic approach to GB networks and not setting incentives which may result in higher overall costs to consumers.

#### Uncertainty and Risk in relation to the high system volts issue

The high system voltage issue is a good example of the sort of uncertainty faced by networks in an environment which is evolving rapidly in response to emission reduction targets, changes in generation technology and location, network extension and undergrounding patterns, and changes in demand patterns. The issue is not restricted to any one area of the GB system; it is arising under different operational contexts across the network both in Scotland and across England and Wales. It is not yet fully clear which actions will be most appropriate where. In some cases transmission action may be most cost effective; in others, particularly noting the origin of the imbalance of reactive power is located within the distribution network, action on the DNO system may be most effective. In either case the actions could be operational or could require investment, and the choice of the optimum approach will be specific to the location concerned and will need close coordination between each of the TO and DNOs concerned.

Given the above our view is that a framework that mirrors the arrangements under the transmission price control for strategic wider works (SWW) might be appropriate. This would represent a straightforward mechanism for system wide or location specific allowances for investment where holistic whole system solutions across network owners could be proposed. We envisage that in areas where it is identified that action is required (that meets an appropriate materiality threshold) then a SWW type framework would provide an opportunity for the DNO concerned to bring forward a funding request, for Ofgem and the industry to assess its merits and whether it is in consumers' interests, and if so then to provide appropriate funding.

Such a mechanism would not address funding for operational measures which might represent the most efficient approach to addressing issues at some sites / regions and so this needs to be considered too in order that asset heavy solutions are not inappropriately incentivised through lack of funding for an alternative.

#### Future Framework Changes

In the context of uncertainty, it is also worth noting that EU legislation in the form of developing and implementing Network Codes and in particular the Demand Connection Code (DCC) needs to be considered (given that it is anticipated to take effect within the control period and legally require transmission and distribution action). The intent of the DCC is to provide future clarity in the planning basis against which TSO and Distribution System Operators (DSOs) would separately consider the interface, given that across Europe the same issues surrounding high voltage containment are similarly evolving. Our expectation is that, following comitology, the DCC would come into effect in April 2017 and will require transmission and distribution companies to coordinate and set relevant parameters at the interface between their systems at an efficient and economical level. The outcome of this process may therefore require distribution companies to undertake operational or investment measures to bring the operation of certain GSPs within the agreed ranges. This is a further reason for our view that a mechanism is needed to provide appropriate funding where no other funding has been provided and it is shown to be in consumers' interests, or where it results from legal obligations.

Other significant changes to the market frameworks have already, or may in future drive costs that have not been contemplated in DNO business plans. The recently approved Grid Code change GC035 required the replacement of Rate of Change of Frequency (ROCOF) relays for embedded generation in order to mitigate the effects on the total system of frequency changes during large disturbances is one such example which involves significant resource but for which (so far as we are currently aware) funding is not clear. The SQSS review under GSR016 regarding embedded generation effects on boundary transfers is an example of a review currently “in flight” that may also have significant outcomes.

#### Incentives impacting the GSP voltage issue

On electricity losses from distribution networks Ofgem has said it remains concerned, based on the evidence and strategies provided to them so far, whether the DNOs will be able to meet their licence requirement to ensure that losses on their networks are “...as low as reasonably practicable”. Ofgem expects all DNOs to revise their losses strategies. Our view is that this objective needs to be more sophisticated, it needs to reflect an holistic approach which takes account of DNO loss reduction strategies that have potential impacts on the transmission system and could, overall, disadvantage consumers. The objective needs to encourage reducing overall network losses (i.e. T and D) in an efficient and coordinated manner. It should not penalise a DNO for not reducing losses “...as low as reasonably practicable...” where this has been done so as to avoid adverse impacts on the transmission system or to avoid a disproportionate increase in costs to consumers.

National Grid discussed a national set of revenue drivers during development of RIIO-T1. However at the time this issue was in its earliest stages of identification and analysis, and this combined with the complexity of drivers meant it was ultimately considered premature to introduce such a correction mechanism into RIIO-T1 arrangements. Since then our understanding of the issues has developed significantly. Our Future Energy Scenarios (FES) include our current prediction – it is possible to ascribe a materiality to the resolution of the effects at the transmission system level and this could then be used as a yardstick against which DNO “SWW type proposals” could be evaluated. The costs we see in the Balancing Mechanism for management of transmission / distribution interface issues have now escalated beyond £100m p.a. identifying clear opportunity for optimal proposals to provide consumer benefit.

#### **CHAPTER: Four**

We have no comment on questions 1 and 2.

#### Question3: Do you agree with our forecast of RPEs?

There are a number of concerns with the assessment and proposed level of RPEs. These include the treatment of the so-called RPI step-change, which we do not agree with (both the size of the effect, whether it can be assumed to be lasting, and whether future RPEs would be reduced by a corresponding amount anyway given the use of RPI data in, for example, pay bargaining) and whether the approach used to project forward from the totex index value for 2013-14 is appropriate (given that the level of the index in this year is affected by the value of some inputs which are volatile).

#### Question4: Do you agree with our assessment of potential smart savings?

The potential smart savings in Ofgem’s assessment are more than twice the size of those included in the DNOs business plans. Such a significant increase would clearly require a very good justification but it is not clear that the identified smart savings have been sufficiently well justified. There may be overlaps between the different savings identified, the estimates for the individual items may not be reliable, and differences between different regions may mean that a potential level of saving in one cannot be extrapolated elsewhere. Furthermore, the proposed level of smart savings would need to be achieved on top of the cost challenge already faced by the DNOs, including ongoing efficiencies and RPEs: Ofgem needs to demonstrate that they are not double counting the Smart benefits.

Question5: Do you agree with our approach to combining the cost assessment models?

In future price controls it would generally be preferable for Ofgem to indicate the likely approach to combining different cost assessment models in advance, rather than after the results of the separate assessments are known.

Question6: Do you agree with our design of the IQI? No comment

**CHAPTER: Five**

Question 1: Do you agree with our cost of equity proposals?

We do not consider that the proposed cost of equity for the slow-tracked electricity distribution networks includes any headroom (as suggested in the Draft Determination) and have a number of reservations over the proposed value which appears low.

The appropriate cost of equity must be considered against a number of different requirements and cross-checks, including the risks to which the networks will be exposed in the new price control, the likely range of possible returns in the new control and whether the returns under RIIO-ED1 will be sufficient to retain and attract equity to the sector for the investments that are needed to be funded without an over-reliance on debt. We note that Ofgem recognise that the risk premium in the cost of equity may only partly relate to “beta risk” and that the assessment or characterisation of a cost of equity estimate should not be oversimplified<sup>1</sup>.

Ofgem have signalled that during the RIIO-ED1 period they will carry out a programme of work to examine a number of issues relating to equity returns in preparation for future RIIO price reviews. In carrying out this work it will be important to recognise the importance of consistency and predictability in relation to financial parameters, to avoid increases in regulatory risk and, as a result, a higher cost of capital. Ofgem currently seem minded to change the cost of equity approach from that used in previous controls to give more weight to short-term evidence<sup>2</sup>, but as well as making allowed returns more volatile this would give too much discretion to regulators, expose them to political pressure, and so increase the asymmetric risk faced by the networks. Whilst current conditions in financial markets continue to be influenced by the financial crisis of recent years and the subsequent economic policies adopted in key markets including the UK, it will be a number of years before cost of equity will be considered again for the next round of RIIO price controls and market conditions may by then be different.

Question 2: Do you agree with our cost of debt proposals?

In considering the proposed cost of debt index, we welcome Ofgem’s recognition that the allowed cost of debt should not systematically fall short of the cost of debt that has been efficiently incurred by networks, whilst retaining an approach (based on a cost of debt index) which incentivises networks to manage their cost of debt efficiently, as this will ultimately be in the best interests of consumers. We agree that company-specific financing decisions should not normally influence the cost of debt allowances for that company (or other networks / companies).

From the start of RIIO-ED1 there will be three different cost of debt indices being applied across the energy networks. This increases the level of uncertainty over which index will be applied in future controls and as a result raises the perceived levels of regulatory discretion and regulatory risk. Networks would benefit from having predictability, so they can plan and manage their debt financing costs and risks efficiently in the knowledge of how the regulatory regime would fund those costs in the absence of abnormal circumstances.

---

<sup>1</sup> “RIIO-ED1: Draft determinations for the slow-track electricity distribution companies, Financial Issues”, Ofgem, July 2014, paragraph 2.17

<sup>2</sup> “RIIO-ED1: Draft determinations for the slow-track electricity distribution companies, Financial Issues”, Ofgem, July 2014, paragraph 2.2

The draft determination suggests that the proposed cost of debt index can be expected to underprovide forecast debt costs under different scenarios (both “low” and “high”)<sup>3</sup>. We do not agree that there is headroom in the proposed cost of equity to allow for this.

Furthermore, this under-provision can be expected to be increased because the 10-year “break-even” inflation values that are used to deflate the nominal A and BBB index yields to real yields (as part of the process of calculating the allowed cost of debt each year) are likely, on average, to over-estimate actual out-turn inflation. This creates a genuine risk that the proposed cost of debt index will materially and systematically underprovide against actual debt costs across the sector. Ofgem’s reason for ignoring this expectation - that any inflation risk premium is offset by a balancing effect in relation to cost of equity<sup>4</sup> - is not valid. In particular, whilst there are good grounds to expect that break-even inflation will exceed outturn inflation and so this should be taken into account in calculating the cost of debt index, no evidence is presented by Ofgem here or previously of any “negative” inflation risk premium in relation to cost of equity. There are a number of reasons why this cannot simply be claimed to be a corollary of the inflation risk premium in relation to gilts: for example, investors choose to invest in debt and equity for different reasons and for factors beyond the inflation risk premium; investors funds are often segregated by asset class; and the investors in debt and equity are frequently different.

Finally, we continue to consider that issuance costs and other fees associated with raising new debt should be funded in price controls. The evidence in the draft determination finance annex (Figure 2.2) that there is a “halo effect” is insufficient and relates to too short a time period for this effect to be relied on to provide recompense or compensation for these costs and fees throughout the whole of the RIIO-ED1 period (i.e. to 2023).

Question 3: What are your views on our assessment of financeability?

Under an incentive-based framework of network regulation such as RIIO, primary responsibility for maintaining financeability lies with the networks and their owners. However, the Energy Act does require the Authority, in carrying out its duties, to have regard to the need to secure that network licence holders are able to finance their licensed activities.

It is therefore appropriate that Ofgem should consider the likely impact of its draft determinations on the financial ratios of the slow-track companies, and that this assessment should be based on the same notional gearing and other financial assumptions that are used in other parts of the draft determinations.

It follows that the results of Ofgem’s analysis are a concern where the calculated credit rating metrics for the DNOs on a notional basis fall short of the levels that would be consistent with the proposed cost of debt index (i.e. an average of A and BBB values), particularly given that it is the projections of PMICR which are too low as this appears to be the main metric used by at least some of the rating agencies. Ofgem’s apparent willingness to consider ways of addressing this through changes to the RIIO-ED1 price control for the DNO which appears to have the weakest metrics is therefore to be welcomed.

Even though networks are primarily responsible for ensuring they remain financeable, Ofgem’s analysis casts doubt over the proposed revenues in the draft determination and the internal consistency of the proposals. If the metrics calculated by Ofgem are only consistent with a BBB rating (for example), the allowed cost of debt should be increased and based on the BBB index only. It

---

<sup>3</sup> “RIIO-ED1: Draft determinations for the slow-track electricity distribution companies, Financial Issues”, Ofgem, July 2014, Paragraph 2.45 and Figure 2.1

<sup>4</sup> “RIIO-ED1: Draft determinations for the slow-track electricity distribution companies, Financial Issues”, Ofgem, July 2014, paragraphs 2.48 to 2.56

would be perverse to continue to base the allowed cost of debt on an average of A and BBB indices if the resulting credit metrics are only consistent with a lower rating.

Finally, in relation to the new credit metric  $PMICR_G$  proposed by Ofgem, whatever theoretical merits Ofgem may see, it is irrelevant and is not informative if it is not actually used by the rating agencies.

Question 4: Do you agree with our proposals to modify the three financial policies?

In relation to directly remunerated services, it seems appropriate for top-up and standby charges to be included in general totex and within allowed revenues (except where these relate to the recharge of direct expenditure), as proposed in the Draft Determinations.

It also seems appropriate to use DNO specific attributions of qualifying expenditure to the different capital allowance pools to reflect each individual DNO's own profile of spend, rather than applying generic tax pool allocations, and then to roll forward the resulting regulatory tax pool calculations at the end of the RIIO-ED1 period to the next price control.

Paragraphs 5.48 and 5.49 propose a change from the previously proposed financial treatment of asset disposals for RIIO-ED1, by treating proceeds as deductions from totex rather than netting them off RAV additions. We support this approach as DNOs are then better incentivised to optimise their expenditure as a whole taking additions and disposals together, which we agree would benefit consumers.

**CHAPTER: Six**

Question2: Do you agree with our proposal to give all DNOs an uncertainty mechanism for rail electrification?

The use of the uncertainty mechanisms for rail electrification appears sensible given the uncertainties involved in the programme. Given the uncertainties regarding the currently emerging high volts issue an uncertainty mechanism might also provide a possible route providing the flexibility to cater for DNO costs associated with high system voltages where these are more efficiently addressed on the DNO system rather than by action on the transmission system.