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Dear Rachel

Electricity Distribution Price Control Review – Policy Paper

National Grid owns and operates the high voltage electricity transmission system in England and Wales, and as Great Britain System Operator (GBSO), we operate the Scottish high voltage transmission system. National Grid also owns and operates the gas transmission system throughout Great Britain and through our low pressure gas distribution business; we distribute gas in the heart of England, to approximately 11 million offices, schools and homes.

Through our subsidiaries, National Grid also owns and maintains around 20 million domestic and commercial meters, the electricity Interconnector between England and France, and a Liquid Natural Gas importation terminal at the Isle of Grain.

The policy paper is a thorough exploration of how to incentivise electricity distribution networks to operate efficiently while balancing customer and environmental considerations against an uncertain economic and financial backdrop. As an owner of regulated energy networks we take a close interest in many of the issues raised in the paper.

Our responses to the detailed questions raised in the paper are set out in the attachment. This response is not confidential.

Yours sincerely

Paul Whittaker
UK Director of Regulation
[By e-mail]

Attachment – National Grid Response to Detailed Questions

Chapter 1: Introduction and overview

Question 1: Do you agree with our assessment of how the DPCR4 settlement has performed in practice?

The assessment presented in the paper makes a number of points.

1. Ofgem conclude from the Return on Regulated Equity (RORE) analysis:
 - The main operational drivers of differential financial performance across DNOs are performance against opex allowances and performance against the losses incentive. The latter incentive, in particular, provides relatively high average returns.
 - Ofgem also identify an equity outperformance implied by the difference between the assumed cost of debt at DPCR4 and the index Ofgem have used to represent the cost of debt in calculating the RORE.

The RORE measure itself seems to have considerable limitations.

- It is calculated from a mixture of actual data, forecast data and assumptions. The accuracy of the measure generated depends on the quality of those forecasts and assumptions.
- The calculation is opaque – there is a long list of exclusions, inclusions and adjustments.
- It provides a static snapshot forecast of performance over the five years of the price control – it gives no sense of whether performance is improving or deteriorating.
- Because it is based on notional gearing assumption and indexed bond yield, it does not convey any more information about relative performance than the equivalent vanilla return.

We cannot comment on the detail of the RORE calculations but, assuming the results are accurate, the assessment in respect of the operational drivers of performance appears reasonable. The conclusion in respect of overall equity outperformance is simply a result of assumptions/indices and says nothing about any real company performance.

One further conclusion we would highlight from the detailed analysis is that almost all DNOs expect to overspend the opex allowance over this control period. Just as apparent capex underspend is causing Ofgem to consider its approach to setting and monitoring capex allowances, Ofgem should also be considering whether opex performance indicates that something is wrong with the way opex allowances were set at the last review.

2. Ofgem conclude that it is not clear whether apparent capex underspend is a result of inflated estimates at DPCR4, genuine efficiencies delivered by the DNOs or failure to maintain the condition of networks.

We acknowledge that this is an important question over which Ofgem should be able to take a view. However, we would expect Ofgem to be able to establish where the balance of truth lies through a detailed review of DNOs' decision making – i.e. their account of why workloads have varied since their DPCR4 submissions. We would have expected that this process would have been facilitated through the current price control period by the detailed regulatory reporting which DNOs have undertaken.

Question 2: Do you agree with the main lessons we have drawn from this assessment?

Question 3: Have we identified appropriate measures to address our concerns and deliver a settlement that provides better rewards/penalties for highly performing/poorly performing companies?

At a conceptual level the main measures set out seem to comprise:

- Creating incentive schemes to reward good performance (with possible caps and collars).
- Developing and deploying output measures
- Incentives on networks to provide accurate cost forecasts.

These appear sensible goals – the test will come when DNOs and Ofgem try to implement these measures in practice.

Question 4: Do you think our proposal to base DNOs' incentives for under/outperformance around their effective return on equity is appropriate?

Our views on the limitations of the RORE measure are set out under question 1 above.

Notwithstanding these imitations, we would agree that the measure could provide a reasonable sense of the spread of equity performance outcomes which DNOs might experience and how operating performance against individual components of the price control package might contribute to overall risks and returns.

However, the use of standard debt assumptions does mask the contribution of possible financing under/over performance to equity returns. As that debt performance could make a material impact on equity returns, and represents a significant element of the risk that equity bears, Ofgem should give further consideration to how financing performance should be integrated into the overall equity return/risk picture.

Question 5: If you do, what range of return on equity do you think would represent a fair balance between customers' and shareholders' interests to reward increased efficiency, better service and innovation, whilst maintaining strong incentives for shareholders of any poorly performing DNOs to improve performance?

Given the uncertainty around base returns in current market conditions, we are not sure meaningful conclusions on the range of variation around incentives can be drawn at this stage.

Any analysis will also need to consider the link between the range of equity returns to which networks are exposed and the base level of returns set for networks. Exposing networks to greater incentive risk may argue for higher base returns; just as the return requirements have climbed in recent months so has the price of risk.

Chapter 2: Environment

Question 1: Do you agree with our view of future uncertainties and the need for DNOs to change their way of working and thinking to encompass innovation and flexibility?

We believe that the document provides a reasonable assessment of the future uncertainties which DNOs face.

Given these uncertainties we would agree that the review needs to find ways to

- Incentivise DNOs to engage in low carbon initiatives
- Encourage DNOs to weigh both “network” and “non-network” solutions
- So far as possible, “future-proof” investment decisions.

While agreeing that networks will need to innovate and build in flexibility to deal with this uncertainty, it is also probably fair to note that the document marks a step forward in Ofgem's thinking from their traditional view that networks can plan with relative certainty and then be expected to deliver that plan.

Question 2: What are your views on our proposals for DNOs to provide more information to help low carbon initiatives and have we adequately identified and defined the information requirements?

We agree that networks ought to should provide sufficient information to make location and connection of distributed generation as straightforward as possible.

Question 3: Do you agree with our proposal that all distributed generation should pay use of system charges, and if not, can you provide evidence to substantiate your specific concerns?

We agree that all distributed generation, including those connected prior to 2005, should face consistent charging arrangements. We also agree that the charging arrangements should be non-discriminatory and cost reflective, including a credit for benefits e.g. for avoidance or deferment of planned reinforcement for demand growth.

Exposing only an arbitrary proportion of generation to a cost reflective charge does not facilitate competition in generation or efficiency in infrastructure investment.

Question 4: Do you agree that the distributed generation (DG) incentive should be retained? Should embedded transmission be deemed relevant DG?

We agree that the DG incentive should be retained. We would note that reducing the size of the allowance, as Ofgem appear to be suggesting, is unlikely to improve incentives for DNOs to connect additional DG.

We agree that the principles of the DG incentive could be extended to cover embedded transmission.

Question 5: What are your views on our proposals on innovation and flexibility? How would you rate their feasibility and which option is most likely to drive the more innovative and flexible behaviour that we are seeking?

Different forms of innovation and flexibility have to overcome different institutional and technological barriers. Ofgem are right to recognise that different tools will work best in different situations; DNOs and Ofgem should experiment with these tools during DPCR5.

Question 6: What are your views on our proposal to set an incentive on transmission grid exit charges?

We recognise and support the development of arrangements to manage transmission export charges. Such arrangements should contribute to the achievement of an economic and efficient trade off between transmission and distribution network development.

In addition to the use of non-network solutions, we note that in circumstances in which distribution network assets exist between Grid Supply Points, DNOs could potentially influence exit charges more directly with network solutions.

In terms of the use of non-network solutions such as commercial arrangements, we would also suggest that these are more appropriate for large individual customers, given the complexity associated with agreeing the appropriate commercial arrangements with many different customers.

Question 7: What are your views on our losses proposals, and do you have any additional comments on the option to install smart meters on low voltage substations?

We are supportive of appropriate and aligned incentive schemes but note that increased network utilisation can drive increased losses.

We are also supportive of the proposal to introduce additional metering to gain more accurate information and believe this is consistent with the adoption of 'smart' technologies in the distribution system, although we have not evaluated the economics of this which should also be a factor. We are supportive of the use of low loss equipment on networks.

Question 8: What are your views on the various aspects of the business carbon footprint proposals? See also Appendix 6

We very much supports the requirement for business carbon footprint reporting and indeed already reports and publishes our GHG emissions as an integral part of our Corporate Responsibility Report.

We support the approach proposed and have used the protocol proposed in our own carbon footprint reporting. In practical implementation, we have deployed an emission source approach (mobile emissions, stationary emissions, venting and fugitive) to a plc-wide GHGe inventory and in the setting of carbon budgets for performance management purposes. This reflects more readily the activities and therefore responsibilities driving emissions reduction efforts.

We note that the introduction of the Carbon Reduction Commitment will also provide a reporting requirement and BCF should be aligned to this when appropriate.

Finally, there is no mention of third party verification or assurance of the BCF. We note best practise is to obtain independent verification of essential corporate responsibility reports.

Question 9: What are your views on our proposals for refining the undergrounding scheme? In particular, should we apply caps per km of cable by voltage level or should we remove all voltage caps and just have a single overall cap?

We are supportive of the proposals for refining the under-grounding scheme, however we believe that the principle of a cap should be applied to the differential ratio of the costs of overhead line to underground cable, this would give a more representative trigger point to evaluate the costs against the environmental or amenity affects.

Question 10: Do you agree with our proposed approach for the treatment of fluid filled cables?

We support the use of the Operating Code and the risk based approach to strategic replacement.

Chapter 3: Customers

Question 1: Do you think that the range of existing and proposed arrangements will deliver the levels of service customers expect?

Broadly speaking we agree that the existing and proposed arrangements should deliver the levels of service that customers expect, particularly given the main domestic customer expectations identified in Ofgem's customer research. We note that the environmental issues are addressed in the previous chapter and they accord with the customer research information.

Question 2: What percentage of revenue/return on equity should be exposed to customer service and how should it be split between the various areas?

Given the uncertainty around base returns in current market conditions, we are not sure meaningful conclusions on the range of variation can be drawn at this stage.

Any analysis will also need to consider the link between the range of equity returns to which networks are exposed and the base level of returns set for networks. Exposing networks to greater incentive risk may argue for higher base returns; just as the return requirements have climbed in recent months so has the price of risk.

Question 3: Do you agree with our intention to develop a broad measure of customer satisfaction and the proposed advocacy approach?

For the recent Gas Distribution Price control (GDPCR), Ofgem introduced the concept of a Balanced Score card to identify some key measures of GDN customer performance for comparative purposes. We believe that this could be useful in assessing the overall performance of DNOs and is preferable to focusing on individual measures which may be open to periodic

distortion. Whilst we would support the introduction of an incentive scheme to improve customer performance this should contain a suitable balance between reward and penalty.

In relation to customer surveys, these have been carried by GDNs for some years as part of the gas Quality of Service arrangements and were rolled forward with some amendments for the current price control. Under these arrangements, customer surveys are carried out by an independent organisation using an agreed methodology and standard questionnaire framework. This ensures that comparisons between networks are consistent and that any concerns over the way in which a GDN may seek to capture data and analysis are eliminated. In general this approach was supported by all GDNs. In relation to customer surveys we believe that these should be confined to customers who have had some direct interaction with the DNO as opposed to general advocacy which may be more driven by a generic view of utilities distorted by past experience or media reports rather than direct recent experience.

Question 4: Do you agree with our proposed approach to connections, which of the options do you support and why?

In general we support Ofgem's proposed approach to competition in connections. At National Grid we have done a great deal to facilitate competition in the connections market in recent years and this has been largely successful, particularly in new non-domestic and domestic connections and high value work. However, it should be noted that low value connections in both non-domestic and domestic markets are less attractive to competitors and therefore the GDN by virtue of its Gas Act obligations to connect, continues to underpin the connections market.

We support Ofgem's proposal to allow margins to be charged on connections as this may well provide some headroom to enable competitors to compete on price and allow DNOs to make a reasonable return on work that they do carry out. This provision was introduced for the first time in the recent GPCR and has enabled National Grid to include a reasonable profit element in its quotations for the more competitive sectors of the market.

Our position in relation to standards of service has been that it is appropriate to apply standards of service to protect customers where competition is limited, but that the standards should not be too onerous or compensation too generous, as this will stifle development of competition. For instance, competitors may find it difficult to issue quotations as quickly as a DNO and not able to offer equivalent levels of compensation for service failure. Where competition has developed sufficiently, standards of service should be removed.

Question 5: Do you agree with the proposed amendments to the IIS (in full) and what are your views on how incentive rates should be structured?

Appropriate incentives are effective when aligned to the right outputs. In the context of IIS the alignment of incentives and investment drivers at the boundary with the transmission companies should be a considered to avoid unintended consequences.

Question 6: Do you agree with our proposed long-term objective of DNOs being able to automatically know which of their customers are off supply and the exact times, and if so what is the appropriate timescale to achieve this?

The increased adoption of smarter technologies within the distribution network may have economic and customer benefits including the remote telemetry required to detect customers 'off supply'. As the technology required is similar - or a subset – of that required for smart meters this proposal should be considered as part of the wider debate on the benefits of smart metering and the timescales for its adoption (potentially this could a point on the route map to the full implementation of smart meters).

Chapter 4: Networks

Question 1: Have we identified the right behaviours for DNOs? Are there others which should be included?

We agree that the set of network behaviours identified appear to be a reasonable starting point for a price control settlement. However, they capture, in aspirational terms, only one side of the “contract” between the networks and consumers/society.

Networks cannot conform to this set of behaviours in isolation. The DPCR5 settlement must allow sufficient resources to meet these aspirations and must include incentive regimes and flexibility mechanisms which encourage networks to act appropriately as circumstances develop.

Question 2: What action should we take where a DNO has deferred investment and created a backlog in DPCR4?

In reference to DPCR4, Ofgem have conceded that “there may be some ambiguity regarding the nature of the overall price control settlement”¹. It does seem clear, however, that the regulatory contract for DPCR4 was principally constructed on the basis of financial allowances not volumes of work to be delivered.

The fundamental position under the price control is that consumers pay for efficient investments made by DNOs. To the extent that a DNO has taken a decision to invest later, it is reasonable to expect consumers to pay for that investment when it is undertaken.

Given this, it would still seem reasonable for Ofgem to investigate whether a network can reasonably enjoy (or avoid) an incentive as a result of an inefficient deferral. It seems to us that Ofgem should consider this as part of a detailed review of the DNO’s actual expenditure; if the deferral can be unambiguously shown to be inefficient then it may be legitimate to consider the treatment of incentive payments.

Question 3: What approach should we manage to deal with volume uncertainty?

We agree that revenue drivers based on units transported or connected customers may provide perverse incentives and should be removed.

The capex driver approach used in TPCR4 has worked reasonably well and should be examined for DPCR5. The key implementation issue is whether there are sufficiently stable cost drivers which can be established against the investment baseline.

Question 4: What approach should we take to price uncertainty?

Some element of indexation should be considered. The consultation document rightly recognises that a careful balance needs to be struck between preserving incentives for networks to manage prices and allowing networks sufficient resources to fulfil the high behavioural expectations which are set out at the start of this chapter.

Question 5: Should we be looking to equalise incentives for opex and capex? If so, what approach should we adopt?

We can understand that Ofgem have received mixed views from the DNOs.

We have long felt that the regulatory approach does not treat trade-offs between opex and capex in an appropriate way and tends to encourage capex solutions which reduce opex. However, it is possible that equalising incentives would simply replace one inefficient incentive another one.

Question 6: Do you consider that we should make refinements to the IQI? If so, what changes should we make?

One of the objectives of the IQI was to encourage companies to forecast capex requirements as accurately as possible. We believe this should reduce the variation between forecast and actual investment but it may be too early to assess whether this is happening in reality.

¹ Update Letter on the DPCR5 Process – 6/11/08

Forecasting investment requirements 7-8 years into the future, as is required during a price control review, is not an exact science given the impact of changing customer demands, environmental obligations, etc. Furthermore, the final solution for a particular investment need may be different from originally envisaged due to environmental, planning and other network issues.

With this in mind, we agree that it might be appropriate to introduce a dead-band or weaker strength of incentive for variations in actual expenditure around the allowance such that companies who have sought to forecast as accurately as possible are not adversely penalised for necessary and efficient overspend. Determining an appropriate tolerance level may be complex. The IQI allows companies a degree of choice in the level of risk they wish to take on. Therefore, would a tolerance band of, say, +/-5% be sufficient to encourage greater accuracy in company forecasts?

The quality of the review of forecasts by Ofgem during the price control review (and/or the strength of company's evidence to support the need for investment) plays an important role in minimising the scope for companies to inflate their forecasts although it is recognised that there will still be a degree of information asymmetry. We agree that any change in forecasts after initial proposals should be restricted to material and explainable reasons.

Finally, we believe there may be advantages in extending the scope of the IQI to all costs.

Question 7: What action should we take where DNOs provide insufficient output information as part of their February FB PQ?

Our experience of trying to design and implement output measures following TPCR4 is that it is a step by step process which proceeds by incremental improvement. Ofgem have provided incentives for us to improve our measures over time.

Given Ofgem's position, it would be surprising if any DNOs made no effort to deliver output based data and it would be very surprising if any network provided a perfect set of data at the first time of asking. It is much more likely that Ofgem will receive a set of submissions with variable quality and, as a result, that Ofgem will need provide incentives to all DNOs to improve quality over time.

We do not believe it is plausible to introduce a set of output measures which perfectly capture the future performance possibilities of a network and allow revenues to be flexed simply on the basis of output performance. It is much more likely that the output measures which are established will provide a somewhat firmer basis for starting a discussion at future reviews about whether capex levels were the result of efficient or inefficient network decisions.

Question 8: Do you agree with our proposed approach to assessing network operating costs and indirect costs?

There are one or two specific points we would wish to make regarding the approach to the assessment of operating costs.

We support the use of a variety of techniques to assess network operating costs and indirect costs. Such an approach enables the result of each technique to be sense checked giving a more robust set of final allowances. For example, setting final allowances purely on the basis of bottom-up analysis would result in a "cherry picking" effect which can be mitigated to some extent by top down analysis.

When using regression, or similar statistical, analysis it needs to be recognised that not all the gap between a company's performance and the benchmark will be down to efficiency. There will be legitimate reasons for company/network variations (e.g. network sparsity/density, regional labour costs, etc.) although we agree that it is down to the company to provide sufficiently robust evidence to Ofgem.

It is not clear to us whether the proposal to use network investment (and network operating costs) as a potential driver for network policy, network design, engineering management and similar costs would adequately take account of differing company strategies with regard to maintain or replace. The level of management, design and planning effort is likely to be different.

Whilst we agree that testing company performance in the light of external information can be helpful, Ofgem will be well aware of the difficulties in getting comparability of data across companies within the same industry in the same country. These difficulties are amplified when looking across countries with different industry policies/legislative requirements, climate, commercial regimes, etc. and therefore such comparisons should be used with great care.

Question 9: Do you agree with our proposed approach for assessing network investment?

As with opex, we support the use of a range of techniques to assess investment allowances and the points we raise in response to question 6 also apply here.

We note that Ofgem intends to build its own model for the assessment of non-load related expenditure. By definition, the companies will have a much more accurate assessment of what replacement activity is required based on their detailed knowledge of the assets. However, we believe it is appropriate for Ofgem to challenge the company's forecasts based on its own modelling and for the onus to be on the company to justify any material deviations.

Chapter 5: Financial issues

Question 1: Have your views on the appropriate methodology for setting the cost of capital or on indexing the cost of debt changed as a result of the current turmoil in the capital markets?

At this stage our view on setting cost of capital has not materially changed. The current turmoil has highlighted an obvious breakdown in the expected relationship between real and nominal interest rates and cost of equity as inflation has moved into low/negative territory. We believe that this would not necessarily justify a change to the methodology for setting the cost of capital, but would rather justify a floor on the impact of inflation on the RAV and revenues.

Our view remains that regulated companies are best placed to manage their debt portfolios. Indexing the cost of debt within a regulatory period would be difficult to administer and could reduce incentives on companies to manage their Treasury activities. The current turmoil has highlighted the dramatic downside potential of the debt markets compared to long run assumptions. Rather than adopting indexation, this asymmetry, needs to be taken into account when setting the cost of debt at each review. The fact that companies may somewhat outperform the regulatory assumption for much of the time must be accepted, on the understanding that there will be offsetting periods of large underperformance such as we have recently seen. This has highlighted that the potential level of underperformance is much greater than the potential outperformance and so the allowance must be weighted accordingly.

Question 2: What is the appropriate timing of actuarial valuations for setting ex ante pension allowances (see also question in Appendix 10)?

National Grid would support the option of basing pension allowances on the licensee's assessment of pension costs; undertaken as part of the PCR process, supported by scheme actuaries and subject to review by Ofgem. This would help to ensure that the most appropriate and timely pension allowance numbers are included in the Price Control. The introduction of a re-opener would not be supported as it would lead to the introduction of unnecessary regulatory uncertainty, without providing any significant further benefits.