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Dear Hannah,

## **Regulating Energy Networks for the Future: RPI-X@20 Principles Process and Issues**

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 eleven million businesses, schools and homes. In addition National Grid owns and operates substantial electricity and gas assets in the US, operating in the states of New England and New York.

This is a timely review and Ofgem's consultation document and the suite of documents which accompanies it provide an excellent starting point.

This consultation response focuses on a few high level points and we look forward to working through the detail of the issues as the review progresses. Specifically we address:

- The background to the review
- The rationale for the review
- The successes and failures of network regulation
- The individual challenges faced by different network types
- Overlap with other regulatory developments
- The time horizon for the review
- The timetable for the review
- The process for the review

## **The background to the review**

Network regulation has evolved over the last twenty years to improve price and service levels to consumers and to meet the challenges that the energy market has thrown up.

That period may be seen in retrospect to have been a period of unusual stability:

- The UK had abundant cheap indigenous gas supplies.
- The newly privatised generation portfolio started from a diversified base and was modernised using these cheap gas supplies – delivering further diversification.
- The energy networks, as a whole, were middle-aged and facing below average renewal expenses.
- The newly privatised energy networks were organised on a local basis. Managers had considerable scope to deploy emerging IT and communications technology to improve productivity by de-layering organisational structures and a centralising decision making.
- Financial markets were stable - the cost of capital was low and gradually declined over the period.
- Competition within a liberalised market structure, combined with strong incentive regulation of networks, delivered stable and reducing real energy prices for consumers and attracted limited political attention.

These conditions have largely been turned on their head in recent years:

- The UK competes for gas imports in a world market.
- The generation portfolio requires extensive re-powering to meet environmental targets. There is the prospect of considerable generation and demand-side innovation which means that the long-term structure of electricity generation is uncertain.
- Gas distribution networks faced a large step-up in renewal costs from the early part of this decade. Electricity networks, largely built in the 1960s, now face a similar significant increase in renewal expenditure.
- The ability of energy networks to improve their productivity beyond the performance of the economy as a whole has been eroded by the aggressive restructuring of the last twenty years.
- Financial markets have suffered a huge shock and are likely to revert to the less stable conditions, with higher prices for risk, which have been the longer term norm.
- These factors have led to higher and more volatile consumer energy prices. Public confidence in the ability of market structures to deliver fair prices and secure supplies has already led Ofgem
  - to partially re-regulate consumer prices
  - to propose further powers to investigate possible anti-competitive behaviour, and
  - to investigate the ability of the market to deliver medium term security of supply.

When combined with climate change considerations, energy policy is now high on the political agenda.

In the Executive Summary, Ofgem note “[t]he focus of energy network regulation has shifted, from a primary focus on achieving efficiency towards facilitating the efficient delivery of the low carbon economy and continued security of supply.”

Our starting point for the review is at one level removed. The focus of energy policy has shifted, from a primary focus on achieving efficiency toward facilitating the efficient and timely delivery of the low carbon economy and continued security of supply. We would add that in energy (as in other parts of the economy) faith in markets to deliver desired outcomes has come under intense scrutiny and a new approach may to emerge.

We have amended the starting point for two reasons:

- Energy policy is focused on changing the mix of UK sources of primary energy and the overall levels of energy demand. Energy networks have a role in facilitating these changes but, on the whole, they need to enable to respond in an efficient and timely way to changes happening elsewhere in the energy supply chain.
- The mechanisms by which changes to the broader energy supply chain are effected will have important implications for network regulation. If these continue to be led by decisions taken by individual players operating in a market context, then energy network regulation will take one course; if, as many commentators expect, future governments takes a much firmer guiding hand in ensuring energy policy outcomes are met, then network regulation is likely to take a different course.

This potential “guiding hand” has a more extensive role than (and might naturally incorporate) the network guiding mind which Ofgem raise for debate in the consultation. However, this guiding hand is not so much an option that the review can consider as a “known unknown” which the review will have to live with. If the goal of RPI-X@20 is to create a framework for energy network regulation which is fit for the long term, it will either have to make an assumption or chart a course which is sensitive to the possibility of future changes.

### **The rationale for the review**

Ofgem’s rationale for the review is grouped under three headings: good housekeeping, new and uncertain challenges and concerns about complexity.

Good housekeeping requires: examining the mechanisms which make up the different flavours of RPI-X regulation (as it is practised both by Ofgem and in the wider world); identifying whether they work as

intended; and, judging which of the individual mechanisms are best suited to particular circumstances. We should not expect widely different approaches to network regulation but, on the other hand, we should not try to fit network regulation into a single straightjacket. Some effort should be expended during the review to understand what best practice is and why it might vary in different circumstances.

It is unarguable that the energy market faces new and uncertain challenges. Ofgem's LENS work singles out the technology uncertainty which dominates predictions about the future shape of the electricity market. We agree this is considerable. The uncertainty which faces gas markets may not be as multi-dimensional: Ofgem note that there may be a question about the size of aggregate demand and to that we would add uncertainty about future sources of gas (the mix of fossil and renewable sources of that gas). These different dimensions of uncertainty are likely to drive differences in the regulatory regimes for electricity and gas networks in the future.

We are more sceptical about an objective built around complexity but we agree that the regulatory regime should be as simple as possible given the outcomes it is seeking to influence.

### **The successes and failures of network regulation**

The consultation notes the successes of RPI-X regulation – lower prices, modernised networks, sufficient capacity (for the most part) and higher service standards. These have resulted from the successful response of network companies to the incentives created by the regime; the regime in turn reflected judgements which Ofgem made about the best way of fulfilling its duties. Both Ofgem and companies can share the credit for these successes.

By the same token, if the network companies which have emerged from this regime have shortcomings, they arise from the same process. For example, the consultation raises a possible concern that risk-averse network companies are only prepared to invest on the basis of a user commitment; this was of course a design feature of the framework of transmission regulation.

The user commitment requirement arose from Ofgem's historic bias towards limiting network capacity investment (running the risk that too little capacity arrives too late) rather than encouraging investment (and running the risk that too much capacity arrives too soon).

The general point is that today's networks, strengths and weaknesses, reflect decisions taken by both Ofgem and the networks.

Designing regulatory frameworks is an inexact process – some outcomes are intended and desirable, some outcomes are intended but become undesirable, some outcomes are unintended. This is a useful lesson to bear in mind as the review progresses.

### **The individual challenges faced by different network types**

The consultation document is couched in generic energy network terms. It does recognise that that individual networks types (gas and electricity, transmission and distribution) have different characteristics and face different challenges. An early piece of work will be to identify the extent to which different challenges apply to different network types. The review will also need to consider the extent to which particular solutions can be applied to different network types.

### **Overlap with other regulatory developments**

Ofgem identify links with a number of other projects. Some of these are delivering sensible regime changes which overlap strongly with the aims of this review. In particular, we would be surprised if the outcome of this review pointed in a substantially different direction to that being developed in the Transmission Access Review and the recent enhanced incentives work.

EU regulation forms a very particular constraint on the review. In order to ensure the GB networks meet the needs of European energy policy and facilitate the internal energy markets, there are specific requirements on the GB network regulatory framework. European policy seeks to deliver security of supply, enhanced competition and the efficient integration of renewables (e.g. by exploiting diversity in wind variability and pooling the required reserves/backup capacity) by developing the single internal market and the supporting European transmission infrastructure. This infrastructure will include the GB onshore transmission, offshore transmission and interconnectors. The GB network regulatory regimes for these network assets have developed in three different ways and it will be important that they can be reconciled with the European network regulatory approach to be developed by ACER.

### **The time horizon for the review**

Ofgem need to be clear about the time horizon for the review – in other words how far into the future might the lessons of the review might be expected to apply. A horizon of 15 to 20 years seems appropriate - the same period that RPI-X has operated – as the channels along which government policy and energy technology will flow are reasonably clear.

The reason for aiming at this sort of horizon is made well by Ofgem's LENS project which examined the envelope of electricity network structures in 2050. Looking a long way ahead provides important context, but the review cannot decide what 2050's electricity network will look like and then set a path to achieve it; the review can take the view that the electricity networks of 2025 will be built out of today's networks and arise from decisions being taken by government and market players today. The review needs to set a framework that allows networks to develop in a flexible way but the review should concentrate on the sorts of decision that networks will actually face in the immediate future.

This is not to say that the implications of much longer term uncertainty can be entirely avoided by this review:

- Energy network assets are long-lived and the risk does now seem higher that some investments (which are necessary now to facilitate the 2020 targets using current technology) may become stranded as energy markets restructure around them. The regime that emerges from this review will need to deal with this increased level of risk explicitly – particularly against the background of financial market developments mentioned above.
- Nascent technologies, which may become an important part of the future energy market, must not be excluded from markets by the changes which result from this review even if they are unlikely to make a significant contribution to the energy mix in the next ten to twenty years.

### **The timetable for the review**

The review is scheduled to run to the autumn of 2010 – this is too long. Ofgem has a duty to think deeply and consult widely but a more ambitious timetable which wrapped up the process by the spring of 2010 would meet this objective and allow the lessons to be incorporated at an early stage of the next transmission review

One benefit of limiting the time horizon of the review is that less time may have to be spent speculating about the possibilities of the distant future; the review could then be anchored in what is known about current government policy goals and likely near-term developments in energy technology.

This could enable the visionary phase of this review to be curtailed and also limit the period required for options development. Ofgem should not expand the scope and range of issues to fill the advertised timetable but, instead, should continue to rigorously review the scope of the review and limit the issues to those about which it might be useful to draw conclusions.

### **The process for the review**

So far the opportunities afforded to stakeholders to participate have been excellent and the mixture of channels set out in the document has great potential. Ultimately, success will depend on how these channels are used. To the extent that some channels dominate choices about the direction, conduct or content of the review, then other channels may not be able to make up for constraints in that dominant channel. We are particularly concerned that Ofgem may seek to limit invitations to working groups; it is not likely that that stakeholder groups will have homogenous experience or views and we expect Ofgem to encourage wide participation in these groups. We acknowledge that this may make them difficult to run or somewhat unwieldy.

We welcome the RPI-X@20 review – it is important that regulation looks forward to emerging issues while consolidating the lessons of the past – and we look forward to taking an active role in the debate.

Yours sincerely

*[By e-mail]*

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