SP Transmission & Distribution

Developing Network Monopoly Price Controls

Response to Ofgem Consultation Paper of August 2002

17th September 2002

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2002-09-17-PR-CT-Aug02_Response-final

EXECUTIVE SUMMARY

This is the response of SP Transmission & Distribution to the Ofgem consultation paper of August 2002 "Developing Network Monopoly Price Controls".

We believe that the key issues for electricity network owners and operators that require to be addressed when developing the framework for the forthcoming price control reviews and in the reviews themselves are as follows:

- The unprecedented change and uncertainty facing the industry.
- The development of renewable energy in line with Government targets.
- The need to preserve the long-term safety and integrity of the UK electricity infrastructure.
- The need for a robust approach to comparative analysis.

These issues are dealt with below.

- ***Unprecedented Change and Uncertainty***

  The forthcoming price reviews are taking place at a time when unprecedented change and uncertainty is facing the industry. The focus of these reviews will therefore be fundamentally different from that of previous reviews. There are a number of factors that will result in increased costs and investment requirements during the next price control period. As a result, efficiencies might not outweigh necessary cost increases and ***revenue reductions should not therefore be viewed as an inevitable outcome of the forthcoming price reviews***. Indeed ***increases in revenue might well be required.***

- ***Renewable Energy Requirements – Securing an Optimal Outcome***

  The increase in the volume of renewable and CHP generation that will arise as a result of Government targets is a huge issue for the industry and for our businesses in particular. This will necessitate a complete transformation of networks to accommodate injections from generation at many more points and at lower voltages. Substantial investment and new techniques will be required and these will not emerge against a background of minimal change and reactive behaviour.

  If these levels of generation are to be accommodated, and unnecessary risk and uncertainty for all stakeholders is to be avoided, the price control and regulatory framework must ***set the direction for the industry and must incorporate appropriate incentives to ensure that the desired outcome is delivered***. Given the lead times associated with the construction of distribution and transmission networks, a wholly reactive approach, based entirely on proven need or inadequacy of the existing assets, will result in a sub-optimal outcome and a significant shortfall in relation to Government targets. We believe that a ***flexible framework that encourages innovative and forward-looking behaviour is required*** if an optimal outcome is to be achieved for all stakeholders.

- ***Preserving the Long-Term Safety and Integrity of the Network***

Strong and healthy electricity networks are fundamental to national economic wellbeing and are vital for security of supply and for strong competition. Allowed investment in networks over the previous two price control periods has not been sufficient to maintain the average age of our assets, which has steadily increased, resulting in an increasing risk of failure. This investment has been set at a level that has forced companies to seek ways of extending asset lives and adopting more advanced risk management and asset replacement regimes in order to contain the upward pressure on investment requirements. These are positive outcomes of the constraints on capital investment and customers have benefited accordingly. However ***there is a limit to how long this situation can continue.***

While age alone does not give a complete picture of the need for investment, it does serve as a useful proxy for the complex issue of asset risk and provides a warning of potential problems ahead. In order to preserve the long-term safety and integrity of the network there is therefore ***a need to begin a long-term prioritised programme of investment***. This investment programme will span at least the next two price control periods and will require commitment and support from Ofgem over this period.

- ***Comparative Analysis of Distribution Network Operators***

Comparative analysis of DNOs will require a ***sound methodology and robust, normalised data*** and must take account of the small number of comparator companies that are available. Regardless of the methodology used, any estimate of relative efficiency is likely to contain substantial noise and potential biases together with genuine information about the underlying efficiency of individual companies. ***The weighting given by Ofgem to estimates of relative efficiency must take account of these issues.***

Objectives of the Consultation Process

We support Ofgem's objectives for this consultation exercise and, in particular, we support the following objectives:

- Increased transparency and consistency.
- An improved price control framework with appropriate and effective incentives.
- Reduced uncertainty.
- Fair and transparent arrangements for dealing with distributed generation.

We are committed to working with Ofgem and the rest of the industry throughout this process to deliver ***a successful outcome that balances the interests of customers, shareholders and all other stakeholders***. We hope that our comments will prove helpful in meeting this objective.

1 INTRODUCTION

1.1 This document is the response of SP Transmission & Distribution to the Ofgem consultation paper of August 2002 entitled "Developing Network Monopoly Price Controls". The focus of the response is on issues for the forthcoming distribution price control review and Scottish transmission price control review, however many of the principles set out in the response are applicable to all network monopoly price controls.

1.2 We support Ofgem's objectives for this consultation exercise and, in particular, we support the following objectives:

- Increased transparency and consistency.
- An improved price control framework with appropriate and effective incentives.
- Reduced uncertainty.
- Fair and transparent arrangements for dealing with distributed generation.

1.3 The forthcoming price reviews are taking place at a time when ***unprecedented change and uncertainty is facing the industry***. The focus of these reviews will therefore be fundamentally different from that of previous reviews. There are a number of factors that will result in increased costs and investment requirements during the next price control period. As a result, efficiencies might not outweigh necessary cost increases and ***revenue reductions should not therefore be viewed as an inevitable outcome*** of the forthcoming price reviews. Indeed, ***increases in revenue might well be required.***

1.4 We are committed to working with Ofgem and the rest of the industry throughout this process to deliver ***a successful outcome that balances the interests of customers, shareholders and all other stakeholders***. We hope that our comments will prove helpful in meeting this objective.

2 DISTRIBUTED GENERATION

2.1 We welcome Ofgem's constructive approach to issues regarding distributed generation. While a degree of uncertainty surrounds the eventual volume, location and type of generation that will connect to the distribution networks, there is no doubt that, in some areas at least, generation will become a significant consideration. Our distribution businesses are currently in discussion with developers of some 2000MW worth of generation projects. Added to the existing level of generation within these networks, this represents a fundamental change to the nature of the distribution network and will require significant additional investment during the next price control period.

2.2 The volume of enquiries and applications received by our transmission business suggests that ***generation related issues will play a much more significant part in the forthcoming Scottish transmission price control review process*** *than in the past.*

2.3 If these levels of generation are to be accommodated and unnecessary risk and uncertainty for all stakeholders is to be avoided, the price control and regulatory framework must ***set the direction for the industry and must incorporate appropriate incentives to ensure that the desired outcome is delivered***. Given the lead times associated with the construction of distribution and transmission networks, a wholly reactive approach, based entirely on proven need or inadequacy of the existing assets, will result in a sub-optimal outcome and a significant shortfall in relation to Government targets. We believe that ***a flexible framework that encourages innovative and forward-looking behaviour is required*** if an optimal outcome is to be achieved for all stakeholders**.**

2.4 We acknowledge that, for a number of reasons, ***not all companies will have similar issues***. This raises some concerns in connection with benchmarking for capex and opex. Whilst there is a clear obligation on the distribution businesses not only to connect applicants but also to facilitate competition in generation, engaging in activities which give rise to increased costs, particularly increased opex, would have a detrimental effect on our performance in benchmarking assessments.

2.5 This counter incentive has the effect of increasing the risk of failing to meet the Government targets on environmental issues. ***Environmental aspirations will be best served by creating a positive incentive for DNOs to connect distributed generation.*** This could take a number of forms and we would be happy to discuss these with Ofgem.

2.6 ***Those companies that host large volumes of generation should not be disadvantaged in any way for doing so nor should customers connected to those networks.***

2.7 We agree with Ofgem's view that it will be appropriate to assess existing and potential incentives on distributors to connect distributed generation and to operate networks efficiently following connection. Within our networks (distribution and transmission) there are instances where a number of developers are considering projects, but where network costs will be significant or indeed prohibitive for any single applicant. There would be considerable advantage to the generation community as a whole if the network business were to strengthen the main backbone of the network, leaving individuals only to consider their own connection. ***The treatment of such advance investment will require to be clarified during the price review process.***

2.8 In some instances however, there may be alternatives to network reinforcement. For example, it may be possible to substitute non-operational capital or operational expenditure for network investment. Under current arrangements distributors face a dis-incentive in these circumstances, through loss of the return on capital and adverse impact on the benchmark efficiency position. ***Some methodology for addressing these concerns would be a pre-requisite to utilising services from generators.***

2.9 The uncertainty inherent in anticipating levels and mix of generation also applies to the impact of measures designed to accommodate distributed generation. ***It is therefore imperative that clarity of treatment is teamed with agreed and effective methods for reflecting this uncertainty.***

3 INVESTMENT

3.1 Ofgem correctly identify the main principles that sit behind investment in networks as security and quality of service, changes in pattern and level of demand, demand for connections etc. We agree with this list but we note that ***in previous price reviews more weight appears to have been given to historic levels of expenditure*** than to these factors. If this were to be the case in the forthcoming reviews it would raise a number of issues:

- Safety is a paramount objective and the need to comply with new and more onerous regulations and statutes must be approached on a case by case basis. In particular, the impact on investment of the Electricity Supply Quality and Continuity (ESQC) Regulations will require to be accommodated within the review process.

- The increased frequency of extreme weather events over recent years has had an effect on customers' perceptions on the level of service they receive. To address this will require a greater focus on and investment in vulnerable areas of the network. This could not be deduced from historic expenditure levels.

- The Government's Climate Change Programme has given rise to a greatly increased level of enquiries and applications from generators. There is a need to strengthen parts of our networks if we are to ensure that network availability is not to be a barrier to meeting Government targets

3.2 Our contention is that these issues, along with those in Ofgem's list should be considered on their merits and against clear, transparent criteria during the review process. In many of these areas ***the past will not be an accurate guide to future investment requirements.***

3.3 It is important that the criteria by which investment plans will be assessed during the review process is clearly understood by all prior to completion of the Business Plan Questionnaire. In this regard it is ***essential that companies have access to the models that will be used*** for comparisons and that they are informed at an early stage in the process of all aspects that will be taken into account.

3.4 The level of investment in infrastructure in general has been of considerable interest recently. Headline figures regarding levels of expenditure are in themselves irrelevant. However, what is of interest is the impact of previous investment and what future requirements will be.

Previous Investment

3.5 Allowed investment in networks over the previous two price control periods has not been sufficient to maintain the average age of our assets which has steadily increased resulting in an increased risk of failure. Indeed, based on current capital allowed by Ofgem, it would appear that the average asset turnover for many companies is significantly in excess of 100 years. This investment has been set at a level that has forced companies to seek ways of extending asset lives and adopting more advanced risk management and asset replacement regimes in order to contain the upward pressure on investment requirements. These are positive outcomes of the constraints on capital investment and customers have benefited accordingly. However ***there is a limit to how long this situation can continue.***

3.6 While age alone does not give a complete picture of the need for investment, it does serve as a useful proxy for the complex issue of asset risk. The increasing risk of failure associated with an ageing asset base gives even greater cause for concern when placed in the context of historic investment levels. The investment peak for the networks was during the 1950s and 1960s, with current levels substantially below this. Prudent management of the assets has mitigated these risks by allowing many of them to be operated safely beyond the original design life, but this situation cannot be extended indefinitely.

Future Investment Requirements

3.7 As a result of the above, ***there is a need to begin a long-term prioritised programme of investment now rather than wait until the assets begin to fail.*** This would avoid extensive and urgent replacement programmes, allowing a more coordinated approach, safeguarding service to customers and avoiding step changes in prices. This investment programme will span at least two price control periods and will require commitment and support from Ofgem over this period. This should be based around sound asset risk management practice, taking into account the condition and criticality of the assets. ***In this way the long term safety and integrity of the network can be safeguarded.***

4 EFFICIENCY ASSESSMENT

Comparison of Distribution Businesses

4.1 Comparative analysis of DNOs will require a ***sound methodology robust, normalised data and must take account of the small number of comparator companies*** that are available**.** However, even when these fundamental requirements are met, ***measuring relative efficiency is a considerable challenge*** for statistical and other quantitative techniques. Even if reasonably robust conclusions can be obtained with respect to the location of the frontier or the regression line, estimates of relative efficiency will retain considerable uncertainty.

4.2 We recognise the difficulties posed by the different capitalisation policies adopted across the industry. A total cost approach is one of several approaches

that might be considered to solve the problem around the allocation of costs to capital and operating expenditures. ***Whatever the method adopted, costs must be comparable and cost drivers clearly understood.***

4.3 Regardless of the methodology used, any estimate of relative efficiency is likely to contain substantial noise and potential biases together with genuine information about the underlying efficiency of individual companies. ***The weighting given by Ofgem to estimates of relative efficiency must take account of these issues.*** We look forward to working with Ofgem, their consultants, other DNOs and other interested parties to consider the most appropriate approach to comparative analysis.

4.4 There is a significant amount of effort devoted to the determination of an 'efficient level of costs' and it is appropriate therefore that proportionate effort should be allocated to the determination of glide paths for future cost bases. This work should be supported by a transparent and robust methodology that applies to both average efficiency and frontier analysis. It is important to assess the speed at which the efficiency frontier is likely to move in the future. The controllable cost base of the industry is at an efficient level and the ability to reduce costs further is very limited. It may be that ***variances around the average efficiency line are a product of regional cost pressures rather than differing relative performance. Ofgem's analysis must take proper account of such factors.***

4.5 In addition, ***analysis*** of the glide path and future costs ***should take into account the cost pressures that result in increasing costs.*** In many instances customers have had the benefit of the upside of cost reduction and industry mergers and it is appropriate that they bear a share of the risk of cost increases where these are outwith the control of the industry.

Transmission Businesses

4.6 ***Valid comparisons are extremely difficult to achieve for transmission businesses.*** Not only are there very few in this country, but their characteristics, hence their efficient cost levels, are all different. In our experience the most productive use of such studies is on a selective basis, e.g. to identify specific areas where efficiency improvements can be made. ***Inter-company comparisons are therefore more appropriate for use as a cross-check rather than as a definitive method of deriving future operating costs.***

5 INCENTIVES

Potential Distortions

5.1 It is well known that ***a traditional RPI-X price control***, with periodic resetting of allowed revenues, ***can create a number of distorting incentives which are undesirable for stakeholders***, including customers and investors. These include:

- Deferring potential efficiency gains from the end of one price control period to the beginning of the next one.
- Deferring capital expenditure towards the last year(s) of a price control period.
- Encouraging operating expenditure savings rather than capital expenditure savings.
- Unduly encouraging cost savings at the expense of quality.
- Preference for less risky investments with a short payback.

Incentives to Achieve Cost Savings

5.2 The power of an incentive to achieve cost savings may be measured by the proportion of the present value of future cost savings which are retained by the company. Currently, these vary both between capital expenditure and operational expenditure and also year by year through the price control period. This encourages patterns of capital and operating expenditure that are sub-optimal.

5.3 We welcome the confirmation that Ofgem will allow companies to retain the benefits of capital expenditure efficiencies for a fixed period of five years. Nevertheless, we would urge Ofgem to clarify, as soon as possible, the details of how this will be implemented, especially as regards assessment of whether a DNO has met its quality of supply targets, not least because the audited network performance statistics for 2004/05 will not be available before the price control from April 2005 is set. In any case, we would wish to ***avoid a method, which unduly constrained the ability of a company to modify its capital expenditure profile***, especially in response to changing customer requirements, the economic cycle, and performance against quality of supply targets. We also believe that ***similar proposals should be implemented for operational expenditure efficiencies***, to reduce the periodicity resulting from the current price control.

Incentives to Invest

5.4 It will be ***important to ensure that companies are provided with sufficient long-term incentives to invest*** in the network for a number of reasons including:

- To ensure adequate security of supply.
- To improve the underlying condition of the asset base in the longer term.
- To support sound asset risk management practices.

- To facilitate the expected growth in distributed generation.

5.5 The growth profile, mix and location of distributed generation is considerably uncertain, at this stage, and ***the price control and incentive regime will need to be sufficiently flexible to deliver the desired outcome***. We believe that it would be worthwhile to assess what lessons can be learned from Ofreg's approach, in Northern Ireland, in this area, although the details of their approach are not yet clear. For example, consideration should be given to allowing certain categories of investment to earn an additional return above the standard rate, where appropriate.

Incentives to Maintain the Quality of Supply

5.6 We recognise that incentives to reduce costs should be balanced by appropriate incentives to maintain the quality of supply. We have some ***concerns with the way in which IIP is currently operating*** particularly regarding the ***potential exposure of DNOs to events outside their control (e.g. weather) and the apparent variation in the degree of difficulty of system performance targets across the industry***. We have a further concern that the current incentive rates, which vary across DNOs, do not appropriately reflect customers' willingness to pay for quality improvements.

5.7 In addition, it remains unclear as to how Ofgem intend to reset the quality of supply targets, including the treatment of those DNOs that achieve frontier performance. There may therefore be little evidence available when the distribution price control review is undertaken on how DNOs can respond to incentive mechanisms.

5.8 While we appreciate the constraints that led to the current scheme, ***the unavoidable conclusion is that the focus should be on a thorough review and refinement of the existing scheme***, rather than markedly extending its coverage to other output measures.

Improving the Incentive Regime

5.9 A fundamental principle which must be applied when considering improvements to the current incentive regime is that ***only those factors which can be accurately measured and which can be controlled by companies during the price control period should be incentivised***. In addition we believe that, as a general principle, ***incentive schemes should be based on absolute rather than relative performance*** and should include appropriate "floors" and "ceilings".

5.10 It is ***in the interests of customers and all of our stakeholders that we remove the distorting incentives associated with traditional RPI-X price controls.*** Nevertheless, we are concerned that some approaches, if not properly thought through, could inadvertently increase the risk within the business. We look forward to working with Ofgem through the forthcoming working groups and with other interested parties through the proposed workshops to achieve

genuine improvements to the incentive regime while avoiding the introduction of any additional distortions.

6 FINANCIAL ISSUES

Cost of Capital

6.1 In setting a price control Ofgem must have regard to its statutory duty to secure that Licence holders are able to finance their activities. Financing these activities must take into account the exposure to risk and the balance of risk between company and customers. We believe that ***the nature of risk is changing within the industry.*** For example factors such as the development of distributed generation may cause risks to be higher for regional network operators than national network operators.

6.2 Ownership and Group structures have changed and become increasingly diverse when compared to the last review. In this changing environment ***companies must be able to provide incentives for investors***, through the rate of return, to attract equity**.** It is our view that each company must retain the flexibility to choose its own capital structure, consistent with its ownership, and ***future financing options must not be constrained by assumptions made at a price control review.***

6.3 We would propose that the changing nature of risks in general, investor sentiment and changes in ownership all need to be considered and reflected through the cost of capital allowance as we go forward at this review.

Financial Modelling

6.4 Ofgem has previously used a financial model to help assess the impact of its proposals. We support the objective of using financial modelling to ensure a stable level and trend of key ratios such as interest and dividend cover. ***The financial model for each company should be made available to that company together with sufficient detail on the underlying assumptions to enable a full understanding of the outcome of the price control review.***

Depreciation Profiles

6.5 At the previous distribution price review the depreciation profiles for a number of DNOs in England and Wales were smoothed to take account of the fact that their pre-vesting assets would be fully depreciated during the current price control period. This issue will arise for the remaining England and Wales DNOs during the next price control period. The depreciation profiles for these companies should be smoothed in a similar manner.

7 NON-OPERATIONAL EXPENDITURE

7.1 We support Ofgem's view of the need to consider the approach to the treatment of non-operational capital expenditure and the need to define it on a robust basis. In our view, non-operational capital expenditure is that which is ***essential to support the running of the business*** but would be inappropriate to be expensed wholly in the year of purchase. We accept the principle that where such investments bring about business benefits then they can be considered self-financing. However the vast majority of IT investments no longer fall into this category. IT systems have either brought benefits to customers and now ***require to be replaced to maintain current performance levels***, or are ***required for ongoing regulatory reporting purposes***. We look forward to working with Ofgem to determine the appropriate method of financing this expenditure.

8 ENERGY EFFICIENCY

8.1 We support the Government's Climate Change Programme and are actively involved in many of the initiatives, which comprise it. We recognise the importance of energy efficiency and electrical loss reduction as part of this programme and are pleased that Ofgem intends to give these issues consideration during the price review process. In our view it is ***essential that these issues are considered against the wider Climate Change debate rather than viewed as isolated issues.***

8.2 Electrical losses are a natural consequence of the transport of electricity, rather than a result of poorly designed or operated networks. While losses can be reduced (at a cost) through changes to network design and equipment they cannot be eliminated. ***The costs of reducing losses*** by one unit must be considered against the value to society of avoiding the need to generate one unit of electricity, and ***must be reflected in the financial parameters of any loss reduction scheme.***

8.3 We note Ofgem's intention to consult on electrical losses in the near future and will respond in due course.

9 DURATION OF PRICE CONTROL

9.1 The duration of the price control is a balance between providing adequate incentives to companies to outperform the price control and dealing with the risk of unforeseen events causing an unsustainable deviation from the assumptions underlying the price control. ***Providing that the issue of increasing uncertainty can be adequately dealt with, there is merit in considering whether a period of greater than five years is appropriate*** for the price control (or for elements of the price control). We look forward to working with Ofgem on the issue of uncertainty via the Ofgem/DNO working group and with other interested parties through the proposed workshops.

10 DATA/INFORMATION REQUIREMENTS

10.1 Gathering and analysis of data has proved a major drain on the resources of the companies and the Regulator during previous price reviews. We support Ofgem's intention to reduce this burden by increasing the emphasis on information collected on an annual basis.

10.2 ***Where data is required for comparative purposes, it is important that it is subject to robust analysis and normalisation to ensure that a valid comparison can be made.*** The normalisation process must be fully transparent to enable companies to understand any adjustments made.

10.3 It is important that ***dialogue takes place to ensure that Ofgem's requirements can be made clear at an early stage in the process.*** In addition it is important for transparency of process that companies have a clear understanding of how this data and information will be modelled and analysed by Ofgem.

11 PROCESS/TIMETABLE

11.1 As stated previously we agree with the objective of improving the transparency of the price review process and welcome the increased use of workshops and seminars. We also ***welcome Ofgem's intention to make additional relevant information available as long as this does not compromise confidentiality.***

11.2 We ***support Ofgem's intention to assess the price review process*** following its completion, as it is very important to identify and act upon lessons learned from previous reviews. In order to obtain maximum benefit from such an assessment it is essential for this to be ***carried out by an independent body*** reporting to the Authority.

11.3 We note the timetables set out by Ofgem for developing the distribution price control review framework and for the formal review itself. It is important that all parties work together to ensure that these timetables are met and robust final proposals can be produced within the available timescales. As far as the timetable for the formal review is concerned it is extremely important that further detail for the period May 2003 to March 2004 is made available as soon as possible to enable us to carry out our detailed resource planning for this intensive period.

11.4 We note that the consultation document provides no timetable for the Scottish transmission price control review. It is extremely important that a timetable is made available as soon as possible.