Reference

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Electricity Distribution Price Control Review: Initial consultation: July 2003

Thank you for the opportunity to comment on the above paper. We are responding on behalf of EDF Energy. EDF Energy has significant interests in gas and electricity supply and electricity generation, and owns the three electricity distribution businesses serving London, and Eastern Anglia, and South-East of England:

EDF Energy Networks (LPN) plc (formally London Power Networks plc)
EDF Energy Networks (EPN) plc (formally EPN Distribution plc)
EDF Energy Networks (SPN) plc, (formally Seeboard Power Networks plc)

Our responses to Ofgem's June price control paper on developing network monopoly price controls, and to Ofgem's papers on metering issues, and on innovation and Powerzones are made under separate cover. These responses should be read alongside this one.

Our key points are:

<u>Form, structure and scope of the price controls</u>

- New incentive arrangements mean that care will be needed to achieve an appropriate balance and avoid perverse outcomes. We do not believe that Ofgem has achieved such balance, particularly in respect of opex and capex efficiency incentives
- We believe that business rates should be directly passed through, or at least be subject to a correction mechanism defined in advance.
- The revenue driver will need to reflect the expected or actual increased levels of own generation

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- We do not believe that EHV charges should be included within the price control: Ofgem's Competition Act powers being more than sufficient to protect customers in this regard.
- Levels of non-contestable connection charges are expected to be volatile and should not be brought within the price control.

Quality of service and other outputs

- Ofgem's proposed list of service standards would be unnecessarily onerous and setting revenues by reference to them could be impracticable.
- We support a five year control in the context of rolling opex and capex incentives that "survive" the reviews and which may offer longer than five years' retention of benefits.
- Ofgem should clarify how it will robustly judge whether a company has met its "security and quality of supply obligations". Ofgem will need to robustly demonstrate a failure to comply with the distribution licence and associated statutory obligations.
- Frontier efficient companies should enjoy frontier rewards and cost glide paths that assume no further savings. Non frontier companies should be given time to "catch-up". An allowance for modelling error/cost variability should be applied to all companies.
- We do not believe that the output framework should cover environmental matters, as this would risk duplicating other statutory control measures.
- Robust incentives covering storm response are probably impracticable.
- The automatic payment of EGS2 and EGS2A payments remains impracticable on cost grounds.
- Ofgem must clarify the scope of GSS exemptions under review.
- Removing exemptions for storms could have significant implications for the financeability of network businesses.
- Ofgem's suggested interim solution to the storm exemption issue offers no practicable way for a company to appeal against Ofgem's determination of pass through costs.

Distributed generation

- A DG incentive based on MW of connected generation capacity and a lower than normal WACC could lead to sub-normal returns on non-speculative investment, unless the incentive was large.
- Ofgem should clarify its intentions with regard to the number and scope of regulatory asset bases. We believe that separate demand and distributed generation RABs would require the development of robust definitions, but that such separation would create artificial barriers to efficient cost recovery through cost-reflective tariff structures.
- The suggested £/MW driver is very similar to the CML IIP measure. The inclusion of a capacity component in the former seems to only be relevant to large generators connected to actively managed networks. It would also have to take account of a range of circumstances and is probably impracticable.

Assessing costs

- Ofgem should use a range of techniques to inform its efficiency analysis to help reduce the impact of data error. However, if Ofgem proposes to disallow any costs (or to reduce future allowances at rapid rates), the techniques for identifying inefficient costs would have to be extremely robust, and not just a matter of regulatory judgement.
- Efficiency savings from mergers should be treated in the same way as any other cost reduction.
- Projections of costs should not take into account prospective savings from any mergers announced during the price control review.
- Ofgem should not anticipate savings from mergers and should take account of such savings only after a reasonable period in which companies can enjoy the benefits.
- It seem increasingly impracticable for Ofgem to apply its previous mergers policy in which there was to be a permanent reduction of at least £12.5m in charges and it was to be assumed that the companies involved would be at the efficiency frontier.
- Ofgem should treat savings from earlier mergers in the same way as other savings, along with any integration expenditures.

Financial issues

- The absence of agreed or objective sources of information on some elements of the CAPM gives the regulator the opportunity to “cherry pick” data sources and this has led to a recent reduction in the estimated cost of capital for DNOs.
- Cost of capital estimates should be internally consistent, and therefore be based on consistent datasets and stable methods, to avoid “cherry picking”.
- CAPM-based cost of equity estimates should be cross-checked against other measures of the cost of equity where these are transparent and objectively verifiable.
- Given the increased globalisation of capital, the use of market data on US and European electricity distribution companies should be considered.
- Whilst the cost of capital estimates should be “forward-looking” – since they must reflect the returns that investors require to commit future capital – regulators must take account of reasons why “spot” asset prices may be temporarily affected by market conditions. In this respect, the impact of “stock market bubbles” are particularly pertinent.
- WACC parameters should be assessed over a period of time, for example over the course of a business cycle.
- Ofgem should clarify what credit rating it regards as being comfortably within investment grade. Single A would be the minimum appropriate rating.

- Ofgem should ensure that the cost of debt used in calculating the cost of capital is consistent with the relevant projected financial ratios under a range of economic conditions.
- A pre tax WACC provides incentives for companies to finance themselves efficiently. A post tax approach would inappropriately claw-back the benefit of increased gearing and other mechanisms (e.g. leasing) that afford corporate tax shields.
- Ofgem appears to be assuming that now out of the market debt can be re-financed at currently low spot rates without payment of financial penalties. Clearly this is unrealistic and is equivalent to assuming away sunk costs that were prudently incurred in the past.
- Incentives for companies to make efficient long term financing decisions require that existing debt costs are recovered in full – unless Ofgem can demonstrate that such costs were the result of financial mismanagement.

We would welcome the opportunity to discuss our views with you. I will be in touch to organise a date when we can meet.

Yours sincerely

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EDF Energy Networks Branch

Form, Structure and Scope of the price control

Structure of the existing price controls

We note the Ofgem considers that "the broad structure of the price control remains appropriate" (p3.9). While we are not advocating a different approach, we note that the structure of the control is becoming increasingly complex and that the associated reporting burden is growing. In addition to the elements described by Ofgem, additional algebraic terms are expected to be needed for the:

- Opex efficiency incentive mechanism
- Capex efficiency incentive mechanism
- Proposed taxation efficiency incentive mechanism
- Proposed introduction of distributed generation use of system charging
- Proposed distributed generation incentives
- Funding of "exempt" service standard payments
- Funding of RPZ[1]s and innovation

Care will need to taken to ensure that such a complex "nest" of incentives is appropriately balanced to avoid perverse outcomes. We do not believe that Ofgem has achieved such balance, particularly in respect of opex and capex efficiency incentives (see below). Potential tensions are also likely to arise between capex efficiency and losses incentives (the former encourages reduced spend, the latter incentivises investment in network capacity). We believe that these complex interacting incentives are unlikely to work efficiently without much more detailed Regulatory Accounting Guidelines (RAGs). In the absence of such RAGs, simpler price controls may be just as effective.

Business rates

Ofgem's table (p3.9) refers to cost pass through for "prescribed business rates on network assets". This is incorrect. Business rates are not a pass through item, but are forecast *ex ante* at each price control review and the estimated costs included within the P0 values. There is no subsequent *ex post* correction. Ofgem may be getting confused with Transo's price control in which business rates is a pass through item via the TOF_1 and $LDZF_1$ terms[2]

Application of Ofgem's own uncertainty framework shows that it is appropriate for network business rates to be treated as a cost pass-through item. Ofgem's uncertainty framework recommends that costs be passed-through if they are: (1) non-controllable; (2) separable; and (3) material. The level of business rates is almost entirely outside the control of DNOs and this was explicitly recognised by Ofgem at the last distribution price control review, where Ofgem defined controllable costs as excluding network rates[3]. As a tax, business rates are

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[1] Registered Power Zones
[2] Transco price control and NTS SO incentives, Licence Modifications; Ofgem, July 2002.
[3] (e.g. see pg 20, *Letter to Chief Executives of PES Distribution Businesses*, Ofgem, October 1999)

also easily separable from other costs. Finally, business rates are a material cost.

Overall, Ofgem's allowance for rates within the current control does not cover the costs incurred by EDF Energy's companies (the net shortfall each year is around £0.5m in aggregate for EPN, LPN and SPN). As a non-controllable, separable and material cost, according to Ofgem's own uncertainty framework, business rates should be treated as a cost-pass through item.
In the initial consultation document (p6.5) Ofgem defines network rates as a "less controllable" cost and suggests that such costs be either treated as a pass through item or as a direct allowance based on a 'notification' of the cost. Given the uncertainty over the future level of business rates and the inability of DNOs to exert significant control over their level, we believe it appropriate to treat business rates as a pass-through item.

We note that the Government is due to reset business rates from 1 April 2005, and following the recommendations of the Wood Committee, we expect significant changes. The timing of these changes is clearly not conducive to creating accurate price control forecasts in the context of the DPCR timetable. Ex post correction will be essential.

Distribution losses

Our response to Ofgem's consultation papers on losses pointed out that increased losses incentives may be insufficient in comparison with the cost of reducing losses and may merely result in increased risk to distribution business revenues (because of the potentially significant impact of uncontrollable and unpredictable settlements data). The valuation of the losses incentive should be subject to a separate cost benefit analysis in order for Ofgem to understand and demonstrate the effects of its proposals.

Revenue drivers

The revenue driver (p3.15) will need to be amended to take account of the cost of providing network support to distributed generators (entry capacity, voltage and frequency references, fault repair, network control etc). This is because recorded demand units may fall as a result of increased own generation (such as micro CHP), but the costs of the supporting distribution network will not be reduced (indeed, they may increase locally). Increased emphasis on a customer numbers driver would seem to be appropriate.

Scope of the price controls

Our views on Ofgem's comments about the future treatment of charges currently excluded from the scope of the price control (p3.17) are set vout below.

Extra high voltage (EHV) charges

We agree that it is important to protect this class of customer from the possible abuse of monopoly power. However, we do not believe that including such customers within the price control is the correct way of achieving this. The Competition Act 1998 (recently bolstered by the Enterprise Act 2000) gives Ofgem more than sufficient powers to deal with any such monopoly abuse. Furthermore, EHV customers are typically large companies with access to in-house lawyers. If monopoly abuse existed we would expect such customers to ensure that their legal right to protection is enforced. We are unaware of any such demands.

Top-up and standby charges

We agree that these charges should remain as "excluded".

Non-trading rechargeables

We agree that these charges should continue to be excluded from the price control.

Connection charges

Connection charges are rightly placed outside the price control because volumes and costs are unpredictable and highly variable. The classification into contestable and non-contestable charges does not alter these characteristics and should not affect price control treatment. We believe that use of Ofgem's uncertainty methodology would support this position.

It may be appropriate to introduce a limited number of additional or revised performance standards in respect of non-contestable connections work. We regard Ofgem draft standards[4] as unnecessarily onerous and also as probably impracticable.

Duration of the price controls

We continue to argue that the proportion of efficiency savings accruing to distributors is insufficient to support significant further efficiencies that depend on upfront expenditure (unless additional cost allowances are provided) and that the capex and opex retention proportions need to be more balanced. Increasing the duration of price controls is one approach to achieving these goals. However, the introduction of rolling capex and opex incentives provides an opportunity for retention periods to exceed the price control duration (i.e. offering longer than five years' retention of benefits). On the basis that such

[4] Draft standards of performance, Ofgem, 22 October 2001(ECSG Web page)

rolling mechanisms “survive” reviews we support the continuance of quinquennial price control reviews (p3.21) for electricity distribution.

Ofgem needs to clarify how retained benefits arising in one control period under a rolling mechanism (retained for say the last two years of the current price control period – and therefore to be retained for further years in the next control period) will be addressed in the review. We note Ofgem’s encouraging remarks (p3.24) with regard to DNOs’ proposals for the practical implementation of the rolling capex efficiency incentive mechanism.

Fixed retention period for efficiency savings

Ofgem’s clarification of the commencement date for the capex and opex incentive mechanisms is welcome (p3.22).

We agree that achieving 2004/05 quality of supply targets is not the same as meeting “security and quality of supply obligations “(p3.23) which would seem to embrace a wider set of considerations. However, this begs the question as to how Ofgem will arrive at a robust “general view of companies’ compliance”. We would not wish to see a reliance on the type of adjustments seen at the last review (the so called “within range” adjustments). The adjustments offered few incentives, because they were neither predictable, nor clearly linked to reproducible behaviour. In any case, Ofgem has enforcement and fining powers in respect of non-compliance with the relevant licence and statutory obligations. If there is no case for using these powers, there would seem to be no case for “unofficial” price control action, which will only serve to increase risk, confuse incentives and discourage investment.

<u>Improving the incentive and price control framework</u>

Our detailed comments on the matters raised (p3.25) are set out in response to the June paper on developing monopoly price controls.

Suitable incentives should be provided to “frontier” companies. This should include:

- No further efficiency savings anticipated in the control (i.e. flat cost glide paths);
- An explicit frontier reward included in revenue allowances to remunerate the increased levels of risk incurred in keeping costs at frontier levels (see below).

Non-frontier companies need to be allowed appropriate time to “catch-up” with frontier performance. We note that the appropriate time may be decades in respect of quality of supply performance driven by the inherited network configurations.

Modelling error means that non-frontier companies cannot be expected to fully “catch-up” to an estimated frontier. Similarly, such error introduces increased risk for frontier companies to the extent that frontier costs do not fully reflect sustainable costs going forward (hence, the frontier reward recommended above).

We note that because of the vagaries of the last price control review, delays in introducing robust regulatory accounting rules, and uncertainty over Ofgem's choice of benchmarking methodology, it is not currently possible for the companies to identify frontier performers. It is not therefore possible to emulate best practice in this respect. Ofgem should aim for an enduring price control framework that overcomes these problems. In particular, Ofgem should set reasonable targets for each DNO by reference to its own costs and operating conditions, without placing undue reliance on ever-changing comparisons between DNOs.

Quality of service and other outputs

Scope of the output measures

We agree are that it is important to base the scope of output measures on consumers' interests (p4.11). However, we do not believe that the output framework should cover environmental matters (such as the use of sulphur hexafluoride and the control of cable oil leakage) that are already monitored by the relevant health, safety and environment bodies, and which are already subject to statutory control arrangements, including potential fines and criminal liability. Ofgem's mandate to protect electricity consumers should be limited to their interests at the point of sale (i.e. to the price and quality of distribution services). Ofgem will of course need to take into account costs imposed by environmental obligations and any guidance on such matters from the Secretary of State. However, inclusion of such matters in the outputs framework would reduce clarity of responsibility, and introduce a degree of double jeopardy, potentially conflicting objectives and unnecessary uncertainty over future regulatory priorities.

Irrespective of the potential merits of including output measures covering storm response (p4.13), there would seem insuperable practical difficulties in devising arrangements that are responsive to storm severity and which are both fair to companies and consumers.

Form of incentive scheme, targets and incentive rates

We note Ofgem's comment regarding possible perverse behaviour resulting from the inclusion of planned outages within the current IIP scheme. We are unaware of such behaviour. However, we note that there are important differences between companies' approaches to live line working and the use of mobile generation that can materially affect the number of planned outages reported. In our view, the use of these techniques is a sign of innovation and increased efficiency, and is in the interests of consumers. It seems appropriate to us that planned interruptions remain within the IIP scheme. Any concerns about perverse behaviour should be addressed as part of the asset risk management audits.

We would be happy to discuss this issue with Ofgem if required.

Balance between financial and other forms of incentives

We agree that companies face a broad range of incentives including the potential impact on reputation. Non financial incentives can be very powerful and can relate to circumstances where performance is difficult to measure objectively. Storm response and the associated consumer/press reaction would be an example of this.

Development of the GOSPs

We have noted above that Ofgem's initial proposals for new and modified standards applicable to connections activity would be unduly onerous and impracticable. Ofgem should use its customer survey data to inform its views in this area so that more focussed arrangements are proposed. However, to be used effectively in this way, the survey needs to be appropriately defined. A simple questionnaire asking customers to state their preferences is liable to produce biased results. The use of other techniques, such as revealed preference, can be used to avoid biased results.

We continue to support rationalisation of the Overall Standards of Performance regime where there is duplication with other incentives arrangements.

The automatic payment of the 18 hour restoration standard (EGS2) – and, by extension, no doubt the multiple interruptions standard (EGS2A) too – requires data regarding the electrical phase of the customer's connection. The cost of collecting such data is considerable and has been judged by Ofgem previously as prohibitively high. We do not believe that the position has altered materially since Ofgem last reached this conclusion. We note that the introduction of smart metering could have provided a solution to this issue by providing distributors with status information on the customer's supply. However, it is difficult to see how such a goal could be achieved by a competitive metering market, in which load profiling offers an alternative with lower costs to the (individual) customer.

The treatment of exceptional events

Ofgem needs to be clear about what it means by the term "exceptional event". In p4.43 it refers to severe weather in the context of restoring electricity supplies. However, the exemptions arrangements applicable to Guaranteed Standards[5] cover a range of matters, including:

- Customer agreement
- Industrial action
- Inability to obtain access to premises
- Frivolous or vexatious claims

[5] The Electricity (Standards of Performance) Regulations 2001, Regulation 17

- Customer has committed an offence
- Other circumstances beyond a company's reasonable control (such as terrorism, war, disease, civil commotion etc)

In addition, the Guaranteed Standard applying to multiple supply interruptions has its own unique arrangements[6] which, for example, exempt situations in which the cause of the supply loss resulted in the interruption of more than 500,000 customers in Great Britain.

While it is appropriate to reflect on the exemptions mechanisms covering severe weather events in the light of recent experience, we see no justification for revisiting other aspects of the exemptions regime. Ofgem should be clear about the scope of its review.

Ofgem sets out a number of weaknesses it sees in the current exemptions regime under the Guaranteed Standards (GSs) of Performance and the IIP incentive scheme (p4.21). We comment as follows:

- **Lack of clarity/backward looking assessments**. This would seem to be the inevitable consequence of ascertaining the scope of a company's responsibility in the context of a complex and unpredictable event. Only if Ofgem makes companies liable for all eventualities would such a problem be avoided. However, this would increase distribution risk and would raise the cost of capital substantially. Furthermore, it is also standard practice for commercial agreements in competitive markets to constrain the liability of the parties through force majeure arrangements. There is no obvious justification for Ofgem to impose more onerous arrangements on regulated monopolies.

  We note that Ofgem's proposed interim measures do not address this concern as this will also require backward looking assessments.

- **Separate IIP and GSs exemptions mechanisms.** It is true that there are separate exemptions regimes. However, the IIP arrangements deal with broad performance levels and the GSs performance in relation to a person. These are quite different matters.

- **Delays and confusion for customers and DNOs**. We agree that regulatory certainty is an important objective for any revised exemption arrangements.

- **Resource intensive for both Ofgem and Energywatch**. The current arrangements can be resource intensive for Ofgem, Energywatch and the companies.

Ofgem notes (p4.34) that removing exemptions for exceptional events could expose distributors to increased risk which may lead to an increase in the charges that consumer's pay. We agree. It could also have distributional

[6] The Electricity (Standards of Performance) (amendment No 2) Regulations 2002

effects as some customers could receive compensation (even though networks had operated to their current design standards) funded, at least in part, by other customers. It is not at all obvious that such a regime would be in the overall interests of customers, even if it suited Ofgem's administrative convenience. Furthermore, we do not believe that such a policy would be consistent with the Electricity Act[7] which refers to the performance "as in the Authority's opinion ought to be achieved in individual cases".

Interim measures for this price control period for exemptions for exceptional events

Ofgem suggests an approach whereby distributors would not claim exemptions and pay all "valid" compensation claims whether they were at fault or not. While such an approach may be suitable in the case of relatively minor incidents, it would not seem to be appropriate for more major events. A storm of equal impact to that experienced in 1987 would, if exemptions did not apply, lead to compensation payments amounting to tens of millions of pounds (for example around £72m for SPN customers alone). This could imperil the finances of the distributors concerned and result in a significant money transfer to the impacted customers from all customers. Such an outcome would not be appropriate or acceptable.

A way of avoiding such difficulties would be to establish a very exceptional events threshold above which exemptions would apply. However, this creates similar problems of uncertainty to those that Ofgem perceives in relation to the current exemptions regime.

There are further difficulties with Ofgem's suggestion. Under the current arrangements, a company's application of the exemptions regime in respect of a GS claim can be challenged by the customer by referring the matter to the Authority (Ofgem) for determination. Such a determination could then be subject to judicial review in certain circumstances. Under the suggested interim solution (p4.43) companies could only challenge the proportion of cost recovery allowed by refusing to accept Ofgem's entire package of price control proposals (which Ofgem may then refer to the Competition Commission). This would seem to offer little useful protection and it is not obvious why in such circumstance each licensee's directors could, within the context of their fiduciary duties, surrender the licensee's legal rights in the manner envisaged. Ofgem should consider how appropriate and enforceable appeals mechanisms can be developed that would address these concerns.

Comparing quality of supply performance

As Ofgem is aware, we have actively contributed to the development of Ofgem's statistical analysis. As with other forms of comparative analysis, we would ask that Ofgem does not attempt to use the results of its work in a mechanistic way. It is inevitable that statistical models will not capture all of the performance drivers and that many unexplained differences will remain. We

[7] Electricity Act 1989, s39A(1 as amended by the Utilities Act s54(2)

look forward to assisting Ofgem in developing its proposed October 2003 paper. We ask that Ofgem's work continues to be transparent.

Forecast business planning questionnaire

We look forward to helping Ofgem develop detailed guidelines on its preferred planning assumptions covering quality of service interruptions, improved resilience, selective undergrounding and other matters of importance to customers.

Distributed Generation

Incentives for network access and investment

Ofgem describes an "initial outline" of an incentive mechanism (p5.31) which would consist of the following components:

- Cost pass through with a lower than normal WACC[8]; plus
- A supplementary £/MW capacity driver.

The above mechanism is clearly designed to encourage efficient investment decisions by distributors. In particular, it is designed to ensure that work is not undertaken unless there is a high degree of confidence that the connected DG capacity would materialise. Such a mechanism would be appropriate for speculative investment, but may lead to problems where expenditure is not speculative. For example, the connection of a new generator may require significant investment in reinforcement that is not recovered through a "shallow" connection charge. The £/MW incentive may or may not prove to be sufficient for the DNO to achieve even "normal" rates of return on its reinforcement costs. Clearly, the greater the size of the £/MW allowance, the lower will be the risk of sub-normal returns. Given that the investment is not speculative, the £/MW incentive has not affected DNO behaviour (it is obliged to provide a connection), but has increased its risk.

It would also seem difficult to develop suitable £/MW drivers because of the considerable uncertainty regarding the costs of connecting DG, and because of the wide variations in cost that would be expected between large, medium and small/micro DG installations, and within these classes. We expect the DG BPQ to highlight this variability. The structure of an incentive will need to reflect average costs for different classes of generation, and take account of the significant variances from this.

As we have said in many of our previous responses on the subject, it is difficult to robustly label capex as either DG or demand. Consideration of the reinforcement needs of a factory with combined heat and power operation that only generates at certain time makes this dilemma self evident. For part of the time, plant and cables would be used to carry power away from the site, while at other times the same assets will be used to support demand. Differential rates

[8] Weighted average cost of capital

of return on demand and DG capex would inevitably lead to issues regarding the labelling of expenditure. Clear and unambiguous rules would need to be developed.

Additional revenues would be justified because of distributors increased operational risk (particular in the context of quality of supply incentives) arising from increasingly complex Powerflows and their active management.

Ofgem needs to set down clear accounting rules for any separation of the RAB into DG and demand components, along with the reasons for doing so. If these separate RABs are intended to determine separate tariffs for DG-DUOS and Demand-DUOS, the cost recovery risks attached to investment for DG will be considerably higher. Efficient low cost investment by DNOs depends on their ability to recover costs from a stable customer base, which does not include DG. It would be better to remove artificial barriers to efficient tariff design, by aggregating investment and separating the rules for DG- and demand-tariffs.

Ofgem discusses the use of a £/MWh driver to encourage distributors to provide network access. In principle, this would seem an availability incentive similar to (but the converse of) the IIP incentives on minutes lost (CMLs) – which already covers distributed generators. There would seem to be a risk of "reinventing the wheel" in this respect. What is novel is the suggested introduction of a capacity component to the minutes lost measure. The value of this addition would be in respect of partial constraints on a generator's output, and these will, in practice, only arise in relation to installations whose connection is actively managed. In practice, these are likely to be large generators connected to:

- EHV networks; and
- Any actively managed 11kv networks.

Account would also need to be taken of:

- Constraints inherent in the connection (i.e. where the generator has chosen a lower cost, less secure connection;
- Agreements with generators regarding de-energising circuits for network maintenance;
- Generators that run intermittently and unpredictably (such as wind turbines and CHP installations)
- A range of exceptional circumstances (as for demand customers)

All other generators will have available either their full entry capacity or, during a fault, zero entry capacity. In such cases, a £/kWh revenue driver seems to be unrelated to performance by the DNO. Moreover, the information necessary to operate a £/kWh incentive would only be available in the context of actively managed networks.

We note that a corollary to generation entry constraints for demand customers is voltage reductions, and that these are classed as outages under the IIP scheme.

In conclusion, different treatment for generation constraints would not seem to be justified or practicable. A better way forward would be for DNOs to offer bespoke interruptible connection contracts to larger generators. Such contracts could take account of the circumstances and liquidated damages arrangements where appropriate.

Additional mechanisms

We are responding to Ofgem's discussion of registered Powerzones and innovation funding incentives separately.

Assessing costs

Proposed approach to assessing costs

Ofgem discusses the use a range of techniques:

Top down	Regression – 14 companies/7 groups (p6.48)
	OLS, stochastic frontier, data envelope, total factor productivity (p6.49)
	Operating costs, total costs, non load related capex, fault costs (p6.25)
	Cost drivers may include "quality" variables
Bottom up	Load related operational capex
	Non-load related operational replacement capex
	Fault expenditure
	Repair and maintenance

We comments as follows;

- In the absence of a developed and generally accepted approach to assessing distribution business costs, we continue to support use of a range of techniques as this should reduce the risk of inappropriate outcomes. This view would seem to be shared by Ofgem. . However, we note that if the different techniques produce results that are not comparable, then any settlement will not be "robust" (p. 6.26) in the sense that different techniques can be used to support different settlements. If Ofgem wishes to disallow costs for inefficiency (equivalent to setting a high X-factor) it should examine the sources and causes of high costs in detail and identify which decisions or processes are judged to be inefficient. Otherwise, decisions to disallow costs will lack robustness, raise regulatory risk and offer no incentives for companies to become more efficient in the future (because disallowances will be random, not related to efficiency).

- Whatever Ofgem's detailed approach turns out to be, it is essential that there is a high degree of openness and transparency.

- Regression techniques such as OLS and stochastic frontier analysis are unsuitable for use with small data sets. In particular, it is not possible to establish confidence intervals and there are also significant issues of co-linearity between the "independent" variables which are not resolved by using a "composite" variable (as used in the last review). It will not therefore be possible to identify sampling error using these techniques. Once Ofgem's revised regulatory accounting guidelines are implemented fully, and have taken time to bed down, a panel data approach could be developed using data for a number of years. Such an approach is clearly unavailable for this review. We also note that in OLS analysis, the residual term is the amount of costs not explained by the model and not the inefficiency levels of firms. The residual term produced by OLS is as much about the weakness of the model specification as the performance of the firm.

- Ofgem is right to note (p6.51) that data envelope analysis is less useful where the data set is small and there are a number of cost dimensions since there is a tendency for each company to be at the frontier in some respect.

Ofgem states (p6.25) its intention to benchmark controllable opex, and non-load related capex as well as total costs. Benchmarking that does not cover total costs (i.e. benchmarking of opex and of non-load related capex) will fail to account for the trade-offs that exist between the different costs (e.g. the trade-off between opex and capex) and will lead to inappropriate conclusions over the level of costs that are explained and those that are unexplained (i.e. those costs which are sometimes – but incorrectly – attributed to inefficiency alone).

P6.27: In so far as total factor productivity analysis is used to assess scope for future efficiencies, it should be based on an analysis of trends over the long-term, and not an analysis of short-term trends. This is because analysis of trends in DNOs' productivity since privatisation will produce a false impression of the sustainable improvements in productivity levels achievable in future on a sustainable basis. We also note that comparisons of cost levels give no indication of the reasonable rate of reduction that can be expected in future. Higher cost firms (which may or may not be efficient) will not necessarily cut costs faster in the future.

Ofgem discusses (p6.59) the possibility of requiring DNOs to produce cost forecasts under different scenarios for the amount of connected generation, quality levels and resilience of the network. However, to the extent that future costs are genuinely uncertain (and vary widely), the price control formula should adjust to changes in conditions to ensure that revenues track costs. It does not make sense to make a forecast of costs and then stick with it if the level of costs change due to changes in non-controllable costs, e.g. because more (or less) generation connects to the network than forecast.

Merger savings (p6.39 – 6.43)

We have exchanged correspondence with Ofgem concerning its new policy towards mergers, which applied to our merger with Seeboard[9]. From this we understand the following key points:

- The £32m reduction in charges is a one-off reduction in revenue, albeit spread over five years, and bears no relation to any expected level of savings, except in so far as its payment will have been taken into account in the corporate transaction;
- Ofgem will not attempt to differentiate the savings arising from the merger from other initiatives designed to promote efficiency;
- Ofgem will make appropriate allowances for restructuring costs and integration expenditures when setting targets for achieving reasonably efficient cost levels in the future;
- In doing so, Ofgem will wish to take into account the advantages of encouraging ongoing improvements in efficiency;
- Where practicable, Ofgem will continue to make comparisons between companies to identify the scope for efficiency savings, so that companies continue to face incentives to improve efficiency in the future and are appropriately rewarded for having done so in the past;
- Ofgem would not wish to disincentivise any company from being at the efficiency frontier.

From this approach, we have concluded that, while lower cost levels than might be achieved through mergers can in due course be taken into account in setting price controls, the timing of this will need to take into account the need to:

- Offset the original £32m revenue reduction;
- Fully recover restructuring costs and integration expenditures;
- Earn an appropriate return on those expenditures, taking into account risk.

Subject to these points, we agree that efficiency savings from mergers should be treated in the same way as any other cost reduction. At the same time, it does not seem to be consistent with this to suggest that projections of costs might take into account prospective savings from any mergers announced during the price control review which create greater scope for economies of scale than currently available in the sector. In order to maintain sufficient incentives, Ofgem should not anticipate savings from mergers and should take account of such savings only after a reasonable period in which companies can enjoy the benefits of lowering costs below the level that could reasonably be expected of it in the light of the sector's performance generally.

We have greater difficulty with the continued application of Ofgem's previous policy towards mergers, in which there was to be a permanent reduction of at

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[9] London Electricity Group's Acquisition of Seeboard, letter from Callum McCarthy to Vincent de Rivaz (Chief Executive, LE Group), 17 September 2002

least £12.5m in charges and it was to be assumed that the companies involved would be at the efficiency frontier. We accept that, for the sake of consistency, Ofgem would wish to continue to apply this to mergers prior to our merger with Seeboard. However, it seems to us to be increasingly impractical. First of all, it would involve an attempt to identify savings from the merger, despite the fact that in explaining the new policy, Ofgem says this is neither practicable nor desirable. Secondly, the level of costs or charges from which the £12.5m will be deducted will increasingly have been affected, through the benchmarking process by the effects of mergers. There is therefore a risk of double-counting savings to be achieved.

It would seem to us more logical to treat savings from earlier mergers in the same way as other savings, along with any integration expenditures. Therefore, to the extent that they are represented in the cost levels used for the purpose of setting price controls, they will begin to be taken into account in setting charges.

Financial Issues

The cost of capital

EDF energy has commissioned NERA to provide a commentary on Ofgem's proposals. NERA's paper is attached.[10] We believe that NERA's views provide a useful and pertinent contribution to the debate on cost of capital and related financial issues. We highlight some of the key contributions made by NERA below and ask that Ofgem gives serious consideration to these and other aspects of the report (NERA's paragraph numbering is shown in parentheses).

<u>The CAPM methodology and alternatives</u>

- The absence of agreed or objective sources of information on some elements of the CAPM gives the regulator the opportunity to "cherry pick" input data. Use of the resulting regulatory discretion has recently led to a reduction in the allowed cost of capital for DNOs (2.6), to the point where Ofgem's recent decisions on the overall cost of capital have been out of line with objective data.
- Cost of capital estimates need to be internally consistent, and should therefore be based on consistent datasets. In particular, account needs to be taken of the inverse correlation that is generally observed between (1) risk free rates and the cost of debt, and (2) the equity risk premium and beta (2.10). The former are usually measured at a point in time, whilst the latter must be estimated for the coming period, usually from historical time series. Some combinations of point estimates for (1) and historical time series for (2) will be biased upwards or downwards – hence the scope for "cherry-picking". Ofgem should use only consistent, unbiased combinations of data sets, by relying on (averages of) historical time series, rather than point estimates (2.12).

[10] A commentary on Ofgem's initial proposals for setting the allowed cost of capital at the 2005 DNO price control review, NERA, august 2003.

- CAPM-based cost of equity estimates should be cross-checked against other measures of the cost of equity where these are transparent and objectively verifiable (2.19). NERA advocates the use of discounted cash flow models for example (2.20).
- Many DNOs are now subsidiaries of larger (often foreign owned) groups, for which relevant share price data are not available. Given the increased globalisation of capital, the use of market data on US and European electricity distribution companies should be considered (2.21).

<u>Use of forward looking or historic data</u>

- Whilst the cost of capital estimates should be "forward-looking" – since they must reflect the returns that investors require to commit future capital – regulators must take account of reasons why "spot" asset prices may be temporarily affected by market conditions. In this respect, the impact of "stock market bubbles" are particularly pertinent. WACC parameters should be assessed over a period of time, for example over the course of a business cycle (3.8).

<u>Capital structure, gearing and credit ratings</u>

- Ofgem should clarify what credit rating it regards as being comfortably within investment grade (4.2). Single A would be the minimum appropriate rating. (4.5-4.6)

- Ofgem should ensure that the cost of debt used in calculating the cost of capital is consistent with the relevant projected financial rations under a range of economic conditions, not just in a central case (4.8).

<u>Tax</u>

- A pre tax WACC provides incentives for companies to finance themselves efficiently. NERA recommends the retention of a pre-tax method (5.2). A post tax approach would inappropriately claw-back the benefit of increased gearing and other mechanisms (e.g. leasing) that afford corporate tax shields (5.3) and is not required for consistency with other regulators (5.9).

<u>Embedded debt</u>

- Unless its forward looking estimate of the cost of debt takes account of embedded costs of debt, Ofgem appears to be assuming that now out of the market debt can be re-financed at currently low spot rates without payment of financial penalties. Clearly this is unrealistic and is equivalent to denying the recovery of sunk costs (6.2).

- Ofgem's reason for ignoring embedded debt is the assumption that debt costs have been relatively stable, but this assertion is not supported by empirical evidence (6.5).

- Incentives for companies to make efficient long term financing decisions require that existing debt costs are recovered in full – unless Ofgem can demonstrate that such costs were the result of financial mismanagement (6.6).

The CAPM methodology and alternatives

- The absence of agreed or objective sources of information on some elements of the CAPM gives the regulator the opportunity to "cherry pick" and this has led to a recent reduction in the allowed cost of capital for DNOs (2.5).
- Cost of capital estimates should be internally consistent, and therefore be based on consistent datasets. In particular, account needs to be taken of the observed inverse correlation between (1) risk free rates and the cost of debt, and (2) the equity risk premium and beta. The former are measured at a point in time, whilst the latter must be estimated for the coming period, usually from historical time series. Some combinations of point estimates (for (1)) and historical time series (for (2)) will be biased upwards or downwards – hence the scope for "cherry-picking". (2.8) Ofgem should use only consistent, unbiased combinations of data sets.
- CAPM-based cost of equity estimates should be cross-checked against other measures of the cost of equity where these are transparent and objectively verifiable (2.15). NERA advocates the use of discounted cash flow models for example.
- Many DNOs are now subsidiaries of larger (often foreign owned) groups and the relevant share price data are not available. Given the increased globalisation of capital, the use of market data on US and European electricity distribution companies should be considered (2.18).

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- Whilst the cost of capital estimates should be "forward-looking" – since they must reflect the returns that investors require to commit future capital – regulators must take account of reasons why "spot" asset prices may be temporarily affected by market conditions. In this respect, the impact of "stock market bubbles" are particularly pertinent. WACC parameters should be assessed over a period of time, for example over the course of a business cycle (3.8).

Capital structure, gearing and credit ratings

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- Incentives for companies to make efficient long term financing decisions require that existing debt costs are recovered in full – unless Ofgem can demonstrate that such costs were the result of financial mismanagement.

Assessing the RAV and the approach to depreciation

P7.10 raises the possibility that Ofgem may make changes to the RAV in certain circumstances (e.g. where parts of the business are opened up to competition). We believe that it is important for regulatory certainty that these changes only involve a reallocation through time of future RAV amortisation and not a reduction in the RAV as of the current date. Recent decisions by Ofgem and the Competition Commission (eg, NIE in 1997) all support this principle, as a means to avoid unnecessary regulatory risk.

In the previous distribution price control review, Ofgem accelerated (future) depreciation for several DNOs to alleviate forecast cashflow problems. Ofgem raises (p7.15) the possibility of expensing a proportion of repex as an alternative to extending the acceleration of depreciation to all companies. In practice, expensing capex (and/or repex) can be viewed as an extreme form of accelerated depreciation (i.e. over one year). Accelerating depreciation only raises immediate cash-flows at the expense of reducing them in the future (as Ofgem's proposed long-term forecasts of finances (p6.58) will demonstrate). The cash-flow problem, which the acceleration of depreciation is intended to address, stems from Ofgem's decision in 1995 to reduce the uplift in the RAV from 50% to 15%. Although Ofgem states that changes to the approach to depreciation will be neutral in NPV terms (p7.16), the only solution in the longer term may be to increase cash-flows in NPV terms.

Treatment of pension fund costs

Our comments on Ofgem's proposed approach to the funding of pension costs are set out in our response to the June consultation on developing network monopoly price controls.