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Dear Adrianne

Developing network monopoly price controls – Update document 05/03.

You have invited views on the above document and I am pleased to attach our response.

Ofgem's document is the first update since the initial consultation in August 2002. It is a welcome summary of Ofgem's current thinking and we believe reflects the considerable amount of work that has been going on in the Working Groups and Workshops between the network companies and Ofgem. We are pleased to be taking an active part in these Groups.

In summary, our key concerns are as follows:

- We are firmly opposed to the application of Total Cost Modelling (TCM) in setting the price control. In short, we believe that the TCM approach would be arbitrary and would undermine incentives to invest in the network;

- It is our concern that Ofgem may believe they have "solved" opex incentives by increasing the rewards available to the inefficient companies, through the "glidepath" and "rolling opex" methodologies. However, it is vital also to reward equitably the frontier companies, who have already achieved the savings (it should be recognised that it is the moving forward of the frontier which has enabled Ofgem to set the targets for the inefficient companies).

  For these reasons it remains our firmly held view that the "average costs" methodology represents the strongest and most equitable incentive to efficiency. We believe therefore that the incentives put in place should in the end provide the same balance of rewards to the efficient and inefficient companies as would be available under an "average costs" methodology;

- There are significant upward pressures on both investment and operating costs which was not the case at the last price control review;

- Financial model – DNOs need early certainty about accelerated depreciation and the precise rolling capex methodology;

- If the timetable is to benefit from the work that has been done to date, then Ofgem should be considering on which other topics early closure of discussions may also be possible (e.g. use of a post-tax cost of capital and protection from stranded metering assets); and,

- The treatment of merger savings – we see no reason why merger savings should be treated any differently to any other form of efficiency saving.

I hope that you find our comments helpful. We would be pleased to discuss any of the views expressed. In the meantime we look forward to continuing to play an active and constructive part in the ongoing work on the price control review.

Yours sincerely

Rob McDonald
Group Regulation Manager

Developing network monopoly price controls – Update document 05/03.

Response by Scottish and Southern Energy plc

Ofgem's document is the first update since the initial consultation in August 2002. It is a welcome summary of Ofgem's current thinking and we believe reflects the considerable amount of work that has been going on in the Working Groups and Workshops between the network companies and Ofgem. We are pleased to be taking an active part in these Groups. With regard to the first stage of the project on increasing consistency in the approach that is taken to price controls across network monopolies, there are welcome principles established on:

- Process and transparency;
- Focused information;
- Better understanding of views of customers; and,
- The intention to publish the financial model.

As to the second stage of the project on identifying the objectives, process, key issues and principles for DPR4, the document sets out sensible high level objectives for DPR4 and contains a reasonably comprehensive list (and some discussion) of the issues for DPR4. It is our belief that if the timetable is to benefit from the work that has been done to date, then Ofgem should be considering on which topics early closure of these discussions may be possible (e.g. the "rolling" capex methodology, use of a post-tax cost of capital, accelerated depreciation and protection from stranded metering assets).

Scottish and Southern Energy has some serious reservations in relation to certain aspects of the document and the forthcoming price control review. Overall, our key concerns are set out below.

- <u>Comparing efficiency</u>.

  It is our firm belief that any "capex/opex trade-off" is overstated and therefore new and complicated methodologies and incentives are not justified or necessary. We note that the report produced by Frontier Economics makes no mention of the fact that at DPR3 incentives moved away from capex and towards opex, with the introduction of the glidepath or frontier methodology for opex and the "within range" adjustments for capex "inefficiencies". This approach has made it much less attractive to invest in the network and hence removed any incentives to inappropriately substitute capex for opex. More fundamentally, their report does not quantify any "trade-off" but simply relies on a theoretical hypothesis that it must exist.

  Total Cost Modelling (TCM) is suggested by Frontier as a technique to resolve this perceived and unquantified problem, and also any cost/ quality trade-off. We

are firmly opposed to the application of TCM in setting the price control. In short, we believe that the TCM approach would be arbitrary and would undermine incentives to invest in the network. It is also not clear that TCM is necessary in addition to the proposed rolling opex and rolling capex methodologies, where incentives can be balanced by adjusting retention periods.

We also do not believe it is possible to develop a robust and agreed methodology, for example to define either Total Costs or the outputs which are delivered. It is therefore not at all clear that it brings any additional benefits over the current methodology for assessing efficiency and setting allowed revenue, which may have some flaws but at least the flaws are understood. We therefore believe that the broad approach to assessing opex and capex efficiency used at the previous review remains appropriate.

Crucially, we do not believe that TCM can be used to set allowed revenue until proved to deliver allowed revenues consistent with the current "building blocks" approach.

We have addressed our more detailed comments on Total Cost Modelling in Appendix 1, and also in our response to the Frontier Economics report.

- Setting incentives.

  - Opex.

    We welcome the "rolling" retention of opex savings, although we have yet to see the detailed methodology proposed (for example how it will it applied to cost increases), and what definition of opex applies (e.g. does it include rates?).

    However, we are very concerned that this gives higher allowances to those companies which are inefficient, and therefore are starting from a higher cost base and have more opportunity to take out costs, than to those that have already achieved efficiency savings and consequently have lower costs. In addition, the efficient companies did not receive the additional benefits from the "rolling" methodology for those efficiencies made before this new methodology was introduced.

    It also remains our view that the "glidepath" methodology, which was used in DPR3, already benefits the inefficient companies. In itself, it provides no incentive to be at the frontier. For example while inefficient companies only had to get 75% of the way to the frontier, and were given four years to get there, the frontier companies were given only 1% additional allowed revenue. This fell far short of the additional revenue (and potential additional profit) which the "laggards" were given. Indeed, we suspect that when opex efficiency is compared as part of this price control review, DNOs, which were judged as inefficient at DPR3, may still look inefficient on the expectation that they will again be given a glidepath.

It is our concern that Ofgem may believe they have 'solved' opex by increasing the rewards available to the inefficient companies. However, it is vital also to reward equitably the frontier companies, who have already achieved the savings. It must be remembered that it is the moving forward of the frontier which has enabled Ofgem to set the targets for the inefficient companies. Perversely, to add the "rolling opex" incentive to the "glidepath" methodology has the opposite effect, it represents a double hit for the frontier companies (we show this diagrammatically in Appendix 2).

Ofgem's aim in introducing the "rolling opex" methodology was to solve the perceived periodicity problem. However, periodicity is fundamentally caused when a company's own costs determine its future allowed costs. It is therefore our view that some element of the periodicity problem will remain for as long as costs are based on own performance.

The strongest possible incentive for companies to continue to seek out operating efficiencies would come from using an external benchmark for operating costs, with savings against this benchmark retained by each company. An appropriate benchmark would be some form of average of peer group company costs. The incentive properties of such a mechanism are clear and in particular companies would have no incentive to delay making efficiencies, since doing so would have only a negligible impact on future allowances. An average cost approach would thus be effective regardless of where the industry finds itself in the cost reduction cycle. It is also worth noting that, while some companies at the frontier would earn higher returns, in aggregate the industry operating costs allowance would be identical to the allowance under approaches which involve giving each company its own costs. For these reasons it remains our firmly held view that the "average costs" methodology represents the strongest and most equitable incentive to efficiency.

We believe therefore that the incentives put in place should in the end provide the same balance of rewards to the efficient and inefficient companies as would be available under an "average costs" methodology.

- Capex.

The RAV approach remains a strong incentive to investment, and we welcome the commitment to strengthen this through the "rolling RAV", such that efficiency savings are retained for a fixed period. There are a number of ways in which this could be applied, some of which do not have the effect we believe is intended. We would welcome the chance to see Ofgem's detailed proposals and model as soon as possible. The DNOs have worked up a suggested methodology that could be shared with Ofgem, and we discuss the principles in Appendix 3.

Crucial to the RAV approach is an appropriate cost of capital. We believe that 6.5% is, and has always been, too low. In the past DNOs have been able to boost returns by opex efficiencies. However, for the frontier companies there

is no longer any significant scope for further efficiencies. Indeed there is considerable upward pressure on costs, and we explore this further below.

We would also be firmly opposed to any "within range" adjustments similar to those which were applied in DPR3. These were arbitrary and unforeseen and in our view do not represent good regulation. In particular, since these adjustments were not highlighted in advance they were in effect retrospective regulation which serves to undermine, not enhance, incentives.

In particular, Southern Electric Power Distribution was penalised 1% of its allowed revenue (some £15m over the price control period) for its investment in enhancing quality i.e. its spend on BLX and ABC overhead lines, which was judged as "inefficient". The October 2002 storms demonstrated the exceptional performance of the BLX and ABC network (29% of the network has been refurbished with BLX and ABC, yet only experienced 1% of the faults), clearly justifying the expenditure. We note that the DTI has asked Ofgem to take account of this "benchmark performance" at the price control review.

- Investment plans.

  Investment will be the key element of DPR4. There are many upward pressures on investment including:

  - service improvements - including investment required to meet CI and CML targets under IIP, and the Multiple Interruption Guaranteed Standard (worst-served customers);

  - storm performance – improving on the already benchmark performance in the October 2002 storms, for example installing more BLX and ABC covered line and even the undergrounding of overhead lines where appropriate;

  - environmental and legislative issues;

  - ageing assets – DPR3 set capex allowances on the basis that assets would become "three to five years older over the price control period". To date most of the focus has been on the overhead network. However increased fault rates are being observed in underground cables, particularly in oil filled, gas compression and Consac cables;

  - load growth – much of the existing network is fully loaded. Load growth is expected to bring increasing reinforcement costs. However, we would be fundamentally opposed to any NGC/Transco style "deep SO" incentive scheme;

  - distributed generation – there is a lot of activity in Scotland, however the amount and location of distributed generation in the rest of the country is very uncertain. We have set out our views in our response to Ofgem's Open Letter

to DNOs. In essence, we would favour a price control supplemented by £/MW and £/MWH distributed generation terms;

- losses – for example, any requirement to install low loss transformers.

- Pressure on future operating costs.

  There are many other upward pressures on the operational costs of the DNOs, which have occurred during the current price control period. Some of these are common to all the companies, and have been recognised in the Update document, such as S74 Lane Rentals, the ESQC Regulations and the Multiple Interruptions Guaranteed Standard. Others include the forthcoming PMR and telemetry frequency change and the change to the background of mapping systems, which impacts particularly on Southern Electric Power Distribution. We have listed these additional cost pressures in Appendix 4.

  Lane Rentals and the Multiple Interruption Guaranteed Standard

  Ofgem have recognised that efficient costs will be recoverable, in particular in the case of Lane Rentals and MIGS. However, there is still a need to consider the effect on incentives of the precise methodology to achieve this and we would welcome early clarification.

  Competition in Metering and Connections

  It should also be borne in mind that the introduction of competition e.g. in Metering and Connections, brings additional costs to the network monopoly. For example, in the past DNOs would provide a single design and quote for a connection. However, following the introduction of competition, DNOs now have to provide quotes for non-contestable works to several competitors.

  As these businesses become competitive, and market share is lost, staff numbers in these businesses will fall. This will significantly reduce the numbers of experienced and trained staff available to the DNOs to assist in a system emergency. Bearing in mind that DNOs are already under considerable cost pressure, and that revenue is capped, the balance between efficiency and critical mass is of concern. It is therefore vital in the current review that Ofgem take into account practical ongoing operational effectiveness when assessing the results of the theoretical economic efficiency models put forward by the consultants.

  Tree Cutting

  It has been suggested in the IIP-related work on disaggregation, that tree cutting and travel costs are manageable and therefore that these will not be disaggregated. It follows therefore that if DNOs are to be expected to meet the same targets in these instances then the relative cost differences need to be taken into account. For example, this should reflect the fact that SEPD is one of the most densely wooded DNOs and at the same time encounters considerable public reaction to tree cutting.

North of Scotland

Similar recognition of travel times and associated costs of operating in the North of Scotland, as was made in DPR3, would also be necessary (although the £2m adjustment made at DPR3 was in our view insufficient). The remoteness of the Highlands and the difficulty of getting to the Islands, particularly in bad weather, means that the efficiencies in operating procedures that the average DNO can make, are not available to the same extent in Scottish Hydro-Electric Power Distribution's area.

Dealing with Uncertainty

Not only is it important to recognise the additional costs in DPR4 but it is desirable for companies to know in future how such costs will be recognised as they arise, without having to re-open the price control, if the DNOs are to continue to be regarded as low risk and low cost companies. To this end we welcome the work that has been going on in relation to Dealing with Uncertainty, although we have some questions and concerns which we have set out in our response to the Frontier Economics report.

In summary, there are significant upward pressures on both investment and operating costs which was not the case at the last price control review, and these will need to be fully reflected in Ofgem's proposals..

- <u>Financial model</u>.

  We have several areas of concern in relation to the financial model that will be used in DPR4. For example:

  - cost of capital – putting aside for the time being the case for a increase in the cost of capital, Ofgem recognise that there is a need to take account of the change in capital allowances, this is worth £30m p.a. for SSE. To this end we would support a change to a post-tax approach (with tax pass-through), as this brings more predictability of impact than [say] an increased tax wedge in the existing pre-tax methodology;

  - accelerated depreciation – to smooth revenue, and hence prices, arising from the "cliff-face" drop in revenue due to vesting assets being fully depreciated, some companies were allowed accelerated depreciation at DPR3. There has been no commitment to date by Ofgem to apply this to the other companies. Not only do DNOs need early certainty on this in order to carry out their own modelling, but also it is important to be fair and consistent between companies.

    Depreciation and the ability to finance investment may be crucial to some companies' future cash flows. The Update document suggests that repex will be used to smooth financial profiles. We are very concerned that in effect the financial model will drive the outcome of the review i.e. Ofgem may pre-

determine a range within which each company will be allowed a rate of return. If the intention is again to protect the inefficient companies, those companies that are efficient and financially strong should not be penalised relatively.

We have commented above on the need to smooth revenues and prices for the fall in Vesting depreciation. It is important that consistent rules are applied GB-wide and therefore that the Scottish companies are treated in the same way;

- as already mentioned above, DNOs need to know as early as possible the precise methodology that will be used to adjust the RAV for "rolling capex". We would welcome clarity on this from Ofgem as soon as possible;

- the treatment of merger savings – we see no reason why merger savings should be treated any differently to any other form of efficiency saving and. As above, we would welcome a clear and early policy statement on this issue;

- the potential under-funding of pension funds, due to the fall in equity values and the need for companies to increase contributions, has already been recognised by Ofgem as an area for a detailed review. It should be remembered that these pension funds were ring-fenced at privatisation i.e. unlike in other industries, DNOs have an obligation to fund these schemes and are not able to withdraw. It will be necessary to confirm with the Actuaries of the Electricity Supply Pension Schemes how the schemes are valued and the size of deficits and increased contributions required;

- finally, we would repeat our plea for a focused information request. The development of the Regulatory Accounting Guidelines and the work to date on issues for DPR4 are two compelling reasons to avoid the "scattergun" approach to the information request in DPR3. Apart from the detailed information required for the "base year" of 2002/03, the only historic information that is actually necessary is that required to update the RAV i.e. operational capex.

- we would also welcome an indication of how Ofgem intends to use consultants in this area. We believe that Ofgem should be building its own internal understanding of companies' costs, building on the valuable work already carried out done on the Regulatory Accounts, and avoiding the use of expensive consultants.

- <u>Other issues</u>.

  There are a number of significant other issues not referred to in the Update document or only referred to in passing, and we comment on these in more detail below.

  - Metering – there has been little progress on this issue despite proposals from the DNOs. The Update document states that it "may be necessary to consider the treatment of metering assets and costs which are currently part of the

distribution business (and price control)". As Ofgem are aware, DNOs are very concerned about the risk of stranded assets and sunk costs which will arise from the development of competition in metering. Existing meters were installed as a result of obligation, it was not discretionary, and therefore it is not right for companies to bear that risk. Indeed, if DNOs are not allowed to recover these costs it will increase the regulatory risk to which the companies are exposed, and consequently the cost of capital

As we have said before, we do not believe it is necessary to split the price control and therefore the detailed debate about allocation of costs and RAV can be avoided. Continuation of the existing price control protection is sufficient, and individual arrangements can be developed where companies have sold their metering businesses. If it was found that price controls are still required for metering, then simple tariff caps could be set (however, historical investments would need to be retained in the RAV).

- Connections – considering Ofgem's enthusiasm for the development of competition in connections, we are surprised that there is no mention in the Update document of the future treatment of new connections in the price control i.e. will it still be in the price control?

  The provision of new connections is currently defined as an activity of the licensed distribution business, indeed the companies have a licence obligation to connect on request, and is treated as an excluded service.

  In our view this is no longer appropriate for a competitive business. There is no stranded assets issue as in metering and therefore new connections should continue to be excluded from the distribution price control.

- Scottish Transmission Price Control - there are a number of issues which impact on the transmission price control for the Scottish companies. The development of the GB transmission infrastructure to accommodate new renewable generation as envisaged in the RETS studies requires significant investment in the transmission system in Scotland. This will need to be taken into account in setting a new price control. Furthermore, the introduction of BETTA will require consistency in the determination of allowable revenues of NGC, SSE and SP. There may therefore be merit in considering whether there would be any benefit in extending the present price Scottish transmission price controls for one year to coincide with NGC's next review. However, if this approach is adopted by Ofgem, we would require an adjustment to reflect anticipated investment in 2005/06 to accommodate new renewable generation.

There are a number of miscellaneous other issues raised in the document where we have comments. For ease of reference we have set these out below, using the Chapter headings in the Update document.

Consistency of price controls

- We do not believe that any of the aspects of the electricity transmission framework, which are mentioned, are appropriate to electricity distribution. In particular, we would firmly oppose an NGC-type incremental capacity scheme in electricity distribution at this point in time. We have commented on this in more detail in our response to Ofgem's open letter to DNOs about distributed generation.

Assessing costs and incentives for efficiency.

- As companies approach the efficiency frontier, it takes more effort to achieve incremental improvements. It should also be noted in this regard that as a result of accounting changes (FRS17 and the increased costs of severance) the marginal cost of voluntary redundancies will increase compared to the marginal savings available.

  On top of this IIP, in particular, and any financial penalties for not attaining quality targets reduce the risk that companies may reduce costs at the expense of quality. This means that the incentives on companies become increasingly asymmetric, in favour of the customer. To counter this Ofgem are proposing to allow companies to retain the benefits of opex and capex efficiencies for a fixed period of time, and five years for each has been suggested. It is our simple interpretation from the Frontier Economics report that the capex retention period would need to be seven years in order to balance the incentives between capex and opex (and we assume that this is Ofgem's aim), and even then customers receive some 75% of the benefit from efficiency savings. It is our view that this should be at least 50/50 sharing, in NPV terms, if companies are to be incentivised to continue to strive for every cost efficiency.

- The treatment of non-operational capex.

  With the introduction of the "rolling opex" methodology it no longer seems appropriate for non-operational capex to be treated as opex in the financial model, although to change would be to the detriment of cash flow. Under this methodology where non-operational capex is undertaken to make future opex savings, there would be a perverse disincentive to undertake efficiency saving investment in the first place.

  On balance it seems preferable that all non-operational capex should go into the RAV, to avoid distorting incentives between "rolling capex" and "rolling opex". The adverse effect on cash flow could be alleviated by depreciating over a shorter period, linked to the actual useful asset life, or with a higher cost of capital reflecting the shorter life and potential early obsolescence and riskier nature of the investment.

Developing the overall incentive and price control framework

- In identifying the areas where incentives need to be set for companies, we believe that there is firstly a need to define the baseline covered by the RPI-X price control, consistent with a minimum cost of capital. It may then be necessary to have other options where investment and costs are uncertain, or pass-through where out of a company's control.

  However, there is a significant danger that if there are a number of incentives supplementing the price control, each with associated penalties, for example IIP, resilience in storms, losses, Guaranteed and Overall Standards and distributed generation, then this would change the nature of the distribution businesses, expose them to more regulatory risk and consequently increase the cost of capital. In setting the price control it will therefore be vital to consider the aggregate effect on DNOs of the proposals, including the combined effect of different supplementary incentive mechanisms.

- With regard to assessing customers' willingness to pay, we agree that consumer research needs to be carried out at an early stage in order to identify the outputs that companies are required to deliver and to inform the development of the information request. We recognise that Ofgem intend to use a number of ways to assess consumer "Willingness to Pay", including the use of a consumer survey. However, any survey must be carefully designed to ensure it is statistically robust and that the responses are able to be used as an output in the price control review. To this end we welcome the fact that the views of DNOs will also be taken into account in the drafting of the questionnaire, to ensure the validity and reasonableness of the choices offered.

  The size of the sample required should also not be underestimated, especially if the differing customer expectations across GB are to be assessed accurately. Without careful customising of the questions it is likely that cost will prevent a robust output being obtained.

- Although not subject to a direct financial penalty, we see no reason to change the Overall Standard (OS) mechanism at this time. The "name and shame" incentive is as credible an incentive as a financial incentive. Deliberate failure of an OS would of course be subject to a potential penalty under the Utilities Act.

  In order to include OSs within IIP would mean that OS levels would have to be reviewed and set at a realistic level, such that DNOs can beat them, if a financial incentive is to be attached. At the moment all except the Multiple Interruption OS are set at 100%.

- We recognise that the rules on claiming exemptions from Guaranteed Standards need clarifying, and this was highlighted in the October 2002 storms with DNOs interpreting the mechanism differently. However, the "force majeure" exemption represents a vital protection to the DNOs against the risks associated with events beyond their control, and we would firmly oppose its removal.

We have responded separately on the proposals for defining exceptional events under IIP.

- we cannot really comment on setting quality of supply targets in detail until the work that is being carried out on disaggregation has been reported on, other than it would be consistent with the long term nature of the business to set quality of supply targets for a longer term, and that it is important to take into account both customers' willingness to pay for improvements and the relative cost for each company to deliver the same improvement.

  As already mentioned we firmly believe that attention needs to be paid to the findings of the DTI/BPI report into the October 2002 storms. In particular, this should include reward for the efficient companies as well as penalties for the inefficient;

- We have written to Ofgem on a number of occasions on the Multiple Interruptions Guaranteed Standard. It remains our firmly held view that this onerous standard should be removed at the next price control review, if not before.

Financial issues

Cost of capital:

We agree that in estimating the cost of capital, a level of gearing should be used that is consistent with companies maintaining a credit rating comfortably within the investment grade category.

We have already mentioned above that we favour a move to a post-tax cost of capital with tax pass-through.

Costs of debt

Interest rates are currently low, partly due to poor economic conditions, and consideration must be given to dealing with likely increases in interest rates in the future and the position on historical debt commitments.

Cost of equity

The Competition Commission has emphasised that higher historical estimates of equity risk premium are appropriate. Even if a forward looking estimate is used there is strong evidence to support higher levels than were used in DPR3. The volatility of the stock market over recent months would also support a case for higher risk premiums.

The RAV

We welcome the commitment to not revisiting the historic value of the RAV.

With regard to the question of asset disposals, it seems appropriate to be consistent with the "rolling RAV" approach i.e. that the savings from asset disposals should be retained for five years.

It has also always been widely accepted that the RAV included operational assets only, and we do not understand why Ofgem are raising the question of the disposal of non-operational assets/ properties and adjustment to the RAV at this time. It is not at all clear why this should even be of concern, for example in SSE's case market rates are paid by the distribution business for the rent of buildings.

The next DNO price control review

There seems little to be gained by forecasting costs beyond the next price control period.

More important is the use Ofgem will make of companies' forecasts, and Ofgem raise this point in the Update document. In DPR3 virtually no use was made of the companies own forecasts, despite the considerable time and effort which went into preparing them. Either they should be used or they should not be asked for, and for reasonable and consistent forecasts to be produced, DNOs require early notification of the assumptions on which forecasts should be based.

Provided that the assumptions are adequately defined there should be no need for the Board of the licence holder and its parent company to endorse the strategy and information set out in a company's submission, or for a company's submission to be subject to some form of audit, with the extra costs this would involve.

However, we do not believe that, even with detailed assumptions, it will be possible to assess capex forecasts without a technical review of replacement and procurement procedures (and we do not believe that the Asset Risk Management survey is mature enough to be used for this). Otherwise there is a risk of not taking sufficient account of capex required for example for large reinforcement projects or types of equipment which are failing e.g. Consac cable.

Total Cost Modelling

Total Cost Modelling (TCM) was suggested at DPR3 as a possible solution to the perceived capex/ opex trade-off (i.e. the perception that DNOs are inappropriately incentivised to opt for a capex solution rather than an opex solution). It has also been suggested as a potential solution to any cost/ quality trade-off (i.e. the risk that companies will inappropriately reduce costs at the expense of quality).

We are firmly opposed to the application of TCM at the current price control review because we do not believe that a sufficient case has been made for a departure from the previous methodology. Indeed, we believe that TCM will damage incentives to invest in the current price control period and beyond. We also do not believe that it will be possible to develop a robust TCM methodology. We have set out each of these concerns in more detail below.

There Is No Justification For TCM

It is our firm belief that any "capex/opex trade-off" is overstated and therefore new and complicated methodologies and incentives are not justified or necessary. For example:

- regulatory accounting rules are being standardised, and therefore capitalisation policies should not differ materially;

- the opportunity for real substitution is de minimis anyway (some fault repair costs). We note that Ofgem did not find it necessary in most cases to make material adjustments at DPR3 (particularly in SSE's case); and

- capex underspends in the past were not driven by opting for opex but by low returns, high risk and recovery of premiums paid for ownership of DNOs.

In addition, we note that the report produced by Frontier Economics makes no mention of the fact that at DPR3 incentives moved away from capex and towards opex, with the introduction of the glidepath or frontier methodology for opex and the "within range" adjustments for capex "inefficiencies". Neither does their report quantify any "trade-off" but simply relies on a theoretical hypothesis that it must exist.

It is also not clear that TCM is necessary in addition to the proposed rolling opex and rolling capex methodologies, where incentives can be balanced by adjusting retention periods.

Against this background, we do not believe that Ofgem/Frontier Economics have put forward a sufficiently robust rationale for the substantial departure from the previous approach adopted at the last price review. In particular, we firmly believe that Ofgem should prove that any capex-opex trade-off is material before embarking on fundamental reforms of the process.

TCM Will Damage Incentives To Invest.

We are, however, very concerned that the application of a TCM approach (even in a supplementary role in "support" of other methodologies) would damage incentives to invest in the network. In particular, under TCM the RAV would in effect become meaningless. At present, DNOs will invest if they have certainty that such investments will be added to the RAV. To move from a RAV-based regime would be a major change, and we believe would actually have the opposite effect on incentives to invest and incentives to improve quality than intended (i.e. it would undermine incentives to invest) because the DNO would not earn a return on that investment.

This adverse incentive would be particularly apparent in respect of quality of supply expenditure. Indeed, we firmly believe that TCM would incentivise DNOs to avoid any quality of supply expenditure since there would be no benefit to them of incurring such costs. Another example would be expenditure designed to reduce losses on the system. As a consequence, any present bias under RPI-X regulation to defer otherwise efficient quality of supply investment would be exacerbated under a TCM approach. It is therefore perverse that quality of supply is being put forward as one of the arguments in support of TCM.

In addition, there is a real risk that the next price control could see DNOs subject to a complex web of inter-linked incentive schemes such as IIP, Guaranteed and Overall Standards, distributed generation and losses. In our view, TCM has the opposite effect than is intended by introducing these schemes (namely improvements in quality of supply). Putting this point aside, it will clearly be necessary to ensure that the aggregate effect of the numerous incentive schemes presently being considered by Ofgem is robust and produces the desired outcomes. We firmly believe that this task of ensuring overall consistency in the framework will be more difficult with the application of a complex TCM methodology that provides a very strong incentive not to invest.

TCM is Not a Proven Methodology

We do not believe that it is possible to develop a robust methodology for TCM in which affected parties could have sufficient confidence (even if only used in conjunction with other approaches).

Under a TCM approach standardisation of accounting rules would still be required, as would standardised asset lives and depreciation profiles. Otherwise, capital intensive companies may look more efficient in the short term. TCM therefore offers no advantages over the existing approach in terms of accounting simplicity.

By contrast, we believe that there would be significant issues raised by the definition of Total Costs adopted for comparative modelling. These problems are particularly acute in terms of the definition of the "capital" aspects of the production function. For example, if unadjusted recent capex is input into the model, the model will merely contrast companies that have invested in their network in the base year compared to those that have not, irrespective of whether that additional investment was efficiently incurred or not. Another alternative would be to use depreciation, but this would

similarly need to be adjusted to reflect genuine differences due to historical (efficient) past investments rather than inefficiency in the capital programme.

The scope of the necessary adjustments to determine a "normalised" capex/depreciation number is indicative of the scale of the problem. For example, adjustments to the base number would be required to reflect (at least) the following factors:

- Different customer numbers and length of networks;
- Differences in the split of vesting and post-vesting assets of DNOs in the base year;
- The use at the last price review of accelerated depreciation for some DNOs, but not others;
- "normalisation" for quality of supply to reflect differences in network performance, given underlying asset age, as well as geography and topography of the network;
- different rates of growth across DNOs and the impact of load-related expenditure;
- The point of each DNO in the historical investment cycle (age of assets will provide some clues on this, but cannot be relied on in isolation);
- Different degrees of investment to reduce losses on the network;
- The different degree to which individual DNOs have been subject to environmental obligations such as undergrounding;
- Differences in investment to connect distributed generation; and
- The effect of specific types of historic investment on individual networks (such as Consac cable).

We do not believe that it is credible to expect to adjust base year capex numbers to take account of all of these factors and produce a robust or meaningful "normalised" capital number for modelling purposes. Indeed, we firmly believe that any such "normalised" number would bear no relation to actual investment or depreciation and hence its application to assessing efficiency would be virtually arbitrary.

We are not aware of any other regulatory authority that has overcome these difficulties in a robust way. Indeed, we note that Frontier Economics approach in working with the Dutch electricity regulator was based on imputed values and took no account of the firm's actual investment pattern, inflation and asset lives. It was therefore subjected to legal challenge.

Finally, it has also been suggested that TCM should additionally take account of the different rates of return across DNOs. This would be bizarre. RPI-X incentive

regulation is designed, by definition, to incentivise DNOs to improve efficiency and beat the base targets set by the regulator. By implication, this means that the efficient companies will earn a greater return. Hence, inclusion of the return in any TCM framework will benefit the inefficient.

Conclusions

It is not clear that TCM brings any additional benefits over the current methodology for assessing efficiency and setting allowed revenue, which may be flawed, but at least the flaws are understood. Neither is it clear that TCM is necessary in addressing capex / opex and cost / quality trade-offs, in addition to rolling capex, rolling opex and IIP methodologies.

We have also set out above why we believe a TCM methodology would damage incentives to invest and we have explained some of the practical difficulties in designing a robust total cost model.

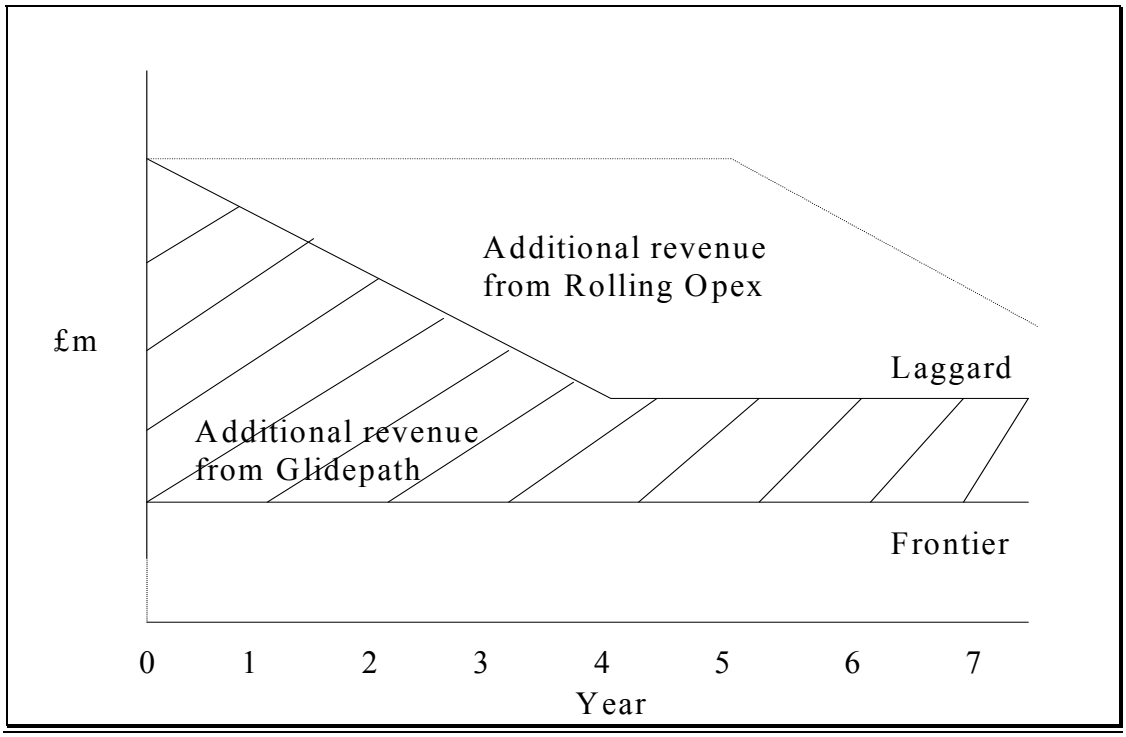
For these reasons, we are firmly opposed to the application of TCM during the current price control review, even if it is used in conjunction with other methodologies. Given the complexity of this approach, we believe that exploring TCM models at this stage will involve substantial additional cost for Ofgem and companies for no discernible benefit to the review process.

We also believe that Ofgem's suggestion that TCM may be relevant in the review process could adversely influence DNOs behaviour in the current year, given the uncertainties about whether quality of supply investment will be rewarded under the price review. We would therefore ask Ofgem as a matter of some urgency to confirm that TCM will not be used at the current review. This would also allow a more focused application of Ofgem's own resources on the many substantial policy issues which need to be dealt with as part of the review.

Appendix 2

Setting incentives – Opex

On Page 5 we refer to the necessity for rewarding frontier companies and that perversely, adding the "rolling opex" incentive to the "glidepath" methodology has the opposite effect, it represents a double hit for the frontier companies. We show this diagrammatically below.



Appendix 3

Principles of a "rolling capex" methodology

Ofgem have committed to DNOs being allowed to keep capex efficiency savings for a fixed period of time, subject to meeting quality of supply targets.

The detailed methodology on how this is to be applied is not yet known, but our concerns are as follows:

- defining an efficiency saving. We believe that any capex underspend should be treated in the same way and that detailed examination of underspends is unnecessary and can be avoided. Whether the underspend has been achieved by pruning unit costs, or by deferring expenditure through condition monitoring or even by finding ways to avoid the expenditure completely, these are all genuine efficiency savings;

- defining the relevant quality targets. We are concerned that there is the risk of DNOs incurring a double penalty under this mechanism and the IIP mechanism;

- specifying the detail of how the adjustment to the RAV will be made. In this regard we would view it as preferable to avoid adjustments to the RAV directly. Otherwise the underlying value of the RAV will be very unclear as savings come in and drop out. The value of the additional revenue to the DNO should clearly include the depreciation and return. This could be modelled parallel to but in the same way as the RAV is modelled. The NPV of the additional revenue could then be added to the NPV of the revenue from the "building blocks" approach, and then sculpted by the use of p0 and Xd in the usual way. It could even be shown as an adjustment to the p0 change, in a similar way to the "within range" adjustments at DPR3

- The drawback is that companies would only receive the additional revenue at each price control review. Consideration could therefore be given to allowing underspends (or a proportion of) as additional allowed revenue each year, with a balancing adjustment being assessed as part of the following price control review.

Appendix 4

Future pressure on operating costs

S74, lane rentals etc.

Section 74 of NRSWA already establishes a penalty regime for road openings that last longer than previously agreed with the local authority. The Lane Rentals trials currently being carried out in Camden Town and Middlesbrough represent a change in the incentive mechanism moving to an upfront fee for opening roads. If extended more widely this will represent significant additional costs which companies will incur and will have to be passed on to customers. Roads have to be opened in the daily course of our work, and Lane Rentals in our view represents nothing more than a "tax" which electricity customers will have to pay. We also understand that there are proposals to widen local authority powers such that they can direct when and where DNOs can open roads. This is clearly inconsistent with other incentives, for example to restore supply in the event of an underground fault. It would also change the way companies work and prevent them from operating at optimum efficiency.

ESQC Regulations

The ESQC Regulations are set by the DTI Inspectorate. The full implications of the recent amended Regulations are still being assessed, but will involve additional costs to DNOs, for example keeping additional records of potential hazards around their networks.

Electricity (Connection Charges) Regulations (Amended) 2002

As from June 2003 DNOs will be required to refund part of the connection charge to customers who have paid the full cost of a new connection, should a "second comer" wish to make use of that connection. This will require DNOs to introduce systems to record where that might apply.

Competition in Connections and Metering

The introduction of competition e.g. in Metering and Connections, brings additional costs to the network monopoly. For example, in the past DNOs would provide a single design and quote for a connection. However, following the introduction of competition, DNOs now have to provide quotes for non-contestable works to several competitors.

Tree cutting

The DTI/BPI report into the October 2002 storms highlighted the importance of tree management in avoiding disruption in severe weather. However, there is increasing

public reaction against cutting trees, for example to falling distance. This means that trees have to be cut more often. This is particularly evident in SEPD's area, one of the most heavily wooded DNOs.

Wayleaves

It is increasingly being found that customers expect higher wayleave payments than historically. In addition it is becoming more difficult to obtain the most economic route for a line, and therefore the associated wayleave costs for schemes are rising.

Efficiency v. critical mass

As the Connections and Metering activities become competitive, and market share is lost, staff numbers in these businesses will fall. This will significantly reduce the numbers of experienced and trained staff available to the DNOs to assist in a system emergency. Bearing in mind that DNOs are already under considerable cost pressure, and that revenue is capped, the balance between efficiency and critical mass is of concern.

Customer expectations

Not only are customer expecting continually higher standards of service, but as they become more aware of the electricity market, they are also contacting us more often.

Change to GIS background (County Series maps)

SEPD's GIS system is based on the County Series maps. It is understood that these are to be withdrawn and therefore that we will have to change the mapping background to GIS. We expect this to require a significant manpower resource and to be a major cost.

PMR and telemetry frequency changes

In order to be consistent with the rest of Europe, DNOs and other utilities and emergency services are having to change the frequencies on which their radio communication and remote network control equipment operate.

Multiple Interruptions GS

The likely compensation and administration costs associated with this Standard are still unknown. However, it is certain that they will increase as customers become more aware of the Standard.

Congestion charges

A congestion charge has been introduced in London. We would expect such charges to be also introduced in other towns and cities.