Electricity Distribution Price Control Review (DPCR5):

Initial Proposals – Cost Assessment Paper

Electricity North West Response

1 Executive Summary

The Initial Proposals as published indicate cuts in expenditure that would result in a significant, long-term reduction in service that would be opposed by our customers.

We are very disappointed that your initial analysis indicated that you should disallow large sections of our robust business plan. In developing, testing and refining our forecast business plan we took into account:

- the needs of our current and future customers in the North West;
- the needs of our efficient, yet inexorably aging asset base; and,
- the views of a wide range of informed and engaged regional stakeholders.

This resulted in a series of outputs and objectives that our forecasts can efficiently deliver, whilst reflecting the impacts of undertaking our largest investment programme of the last half century, together with the unprecedented challenges of the move to a low carbon economy. It must be further recognised that we are planning on delivering these outputs and satisfying these objectives in the aftermath of a significant global economic crisis where there continues to be inherent volatility and uncertainty in the markets in which we operate.

In the six weeks since the initial proposals were published we have continued to engage with the Ofgem team, honouring our commitment to support the ongoing development of Ofgem's comparative efficiency analysis, investment appraisal and financial modelling. We have received assurances from the Ofgem team that the completion of this work is likely to make a substantial change to our cost allowances. This response will, in part, act as a summary of the key issues we have highlighted in our recent dialogue.

The reductions to our cost allowances when compared to our business plan arise from three main areas:

- Reductions in Activity Volumes
- Disaggregated Unit costs Analysis
- Developing Comparative Efficiency Analysis

Each of these areas, as explained below, can easily be addressed by more detailed consideration of the representations contained within this response, via recent bi-lateral discussions and further development of the analysis.

Reductions in Activity Volumes

Whilst the Initial Proposals state that Ofgem support the volumes companies have identified, some key investment requirements have clearly been disallowed. In a number of areas the initial proposals disallow specific investments that we believe are so fundamentally important to meeting our legal and safety obligations that we would need to undertake the work even if there were no funding for it. In these cases, expenditure allowed for other important projects would need to be re-allocated to fund these essential non-funded activities. As a result, we would have to divert £26m from other activities, most likely our asset replacement programmes, to fund these activities.

Disaggregated Unit Costs Analysis

At the aggregate level we recognise that Ofgem has developed a comprehensive and realistic set of unit costs that accords with our own view of costs. However, the application of this unit cost analysis is characterised by repeatedly inappropriate cherry picking at the disaggregated level. An example would be the treatment of our unit costs for the 132kV overhead lines. At the aggregate level our unit costs are actually lower than the Ofgem benchmark. However, our definitions of disaggregated units are different from Ofgem's and our tower costs are lower whilst our costs for conductors and fittings are higher. In taking the lower of each set of unit costs at the disaggregated level, the Ofgem approach effectively cuts several million pounds from our allowances even though Ofgem would actually agree with total cost per km of tower line.

Another example is the reduction to our unit costs to exclude the costs of mobile generation, included to ensure continuity of supply to customers. This is inconsistent with the Ofgem approach to calculating the expected number of unplanned outages where our forecasts have been reduced by the percentage reduction to our total expenditure, thus creating a double jeopardy effect.

Developing Comparative Efficiency Analysis

We are broadly supportive of the development of disaggregated, comparative efficiency analysis and have invested considerable effort in assisting the Ofgem team to develop this approach through DPCR5. However, we do not believe this new form of analysis had reached a sufficiently robust level when the allowances for the initial proposals were calculated. Our experienced and respected econometric consultants, Oxera, advise that the analysis would currently be unable to stand up to independent scrutiny. Several key refinements are still required:

- *Ensuring that the appropriate cost categories are included in the modelling.* In your May document you highlighted that "this technique was not appropriate for IT and Property costs" and hence you had engaged consultants to review these cost areas. The cost pressures and potential for efficiency improvements associated with these cost types are very different from those associated with the broader cost base of operating and maintaining an electricity network. IT and property costs should be removed from the modelling and an Ofgem view, informed by the consultant's reports, used to set appropriate allowances.

- *Removing errors and omissions from the calculations.* We will continue to work with the Ofgem team to refine the analysis and ensure that there is a consistent approach with other elements of the cost allowance calculations such as the investment appraisal.

- *Removing inappropriate cherry-picking.* ENW is one of only 4 out of 14 DNOs being asked to reach the upper quartile for both network operating costs and indirect costs. The analysis to date does not recognise that efficiencies in one set of costs may be facilitated by costs in the other and creates a benchmark based upon a hypothetical entity that does not exist. This is further compounded by the fact that Ofgem are pursuing separate approaches to

allowance setting for opex and capex activities. As capex benchmarks are considering only direct costs, those companies who insource capex are likely to be deemed more efficient and form the capex benchmark whereas companies who outsource will tend to form the benchmark for indirect and opex activities, resulting in an overall benchmark that is dis-proportionally stringent. Combining the results on network operating costs and indirect costs will create a benchmark that more genuinely compares different DNOs with different business models or approaches.

- *Using the analysis to address the fact that some of the apparent "inefficiencies" in our indirect costs are as a result of being the only singleton DNO*. The initial proposals document recognises our unique position and that it will expose us to proportionally greater fixed costs, but this is not reflected in the analysis and proposed revenue levels. Setting a benchmark for efficiency that has been delivered by a merged group of DNOs is inconsistent with the Authority's duty under the Electricity Act to ensure that we can finance our activities. This duty does not allow Ofgem to ignore the structure of the industry or seek to influence the ownership of companies. To penalise ENW for its ownership structure is potentially a breach of the Authority's duty. It is also likely to drive down the number of comparator companies, which conflicts with Ofgem's current merger policy that places a value for customers on maintaining comparators.

- *Taking into account a range of other evidence*. Given the developmental nature of the comparative efficiency analysis a range of other evidence should be used to check the results. Alternative top-down models exist against which the comparative efficiency results could be compared. For example, the Normalised Controllable Cost and Faults (NCCF) analysis developed for DPCR4 has the advantage of being based upon the RRP data set that has been reported, audited and refined over several years. This is in stark contrast to the FBPQ data set, upon which the comparative efficiency analysis is based, given the evolving nature of the FBPQ definitions. It is important to note that DNOs have been asked to again resubmit this data at the same time as responding to these initial proposals and there has not been time for any cross-industry or detailed Ofgem checking or auditing.

Our response demonstrates the sensitivity of Ofgem's comparative models to the choice of input assumptions. We show that making eight logical changes to Ofgem's core models would justify a £55m increase in the ENW cost allowance.

In developing our forecast business plan we repeatedly challenged our service provider to reduce costs, particularly indirects, through further efficiency to ensure contract renewal. In some cases we did not accept their submitted cost estimates and built further stretch into the plan. Our plans resulted in a 1.8% pa efficiency assumption across network operating costs and indirects compared to the DPCR4 cost base scaled up for increased activity volume. This level of efficiency compares favourably with the estimates of frontier shift from your consultants and demonstrates the robust nature of our business plan. It highlights that the cost allowances derived from comparative efficiency are inadequate and inappropriate.

Consequences of the Initial Proposals

The alternative to revising the cost allowances in the initial proposals is described below and is clearly an unsustainable outcome for our customers. Given the capital expenditure costs outlined in the initial proposals we would have to prioritise capital expenditure onto safety and meeting statutory requirements. This would leave significant shortfalls in other areas with potentially serious negative effects on system security, loss of supply, and restoration times. In these circumstances we could not possibly sign up to any of the target outputs we submitted with our expenditure forecasts.

You will understand that predicting the precise effects of delaying asset replacement and reinforcements is impossible given the long life of the assets and the influences of other factors such as system operating conditions and weather. What matters is that we have constructed a capital programme based on rigorous analysis to produce a risk profile which is acceptable to us and which maintains, rather than improves, customer services whilst meeting safety and other statutory requirements. We know Ofgem accept this point, and that is why we have agreed at almost every stage on the development of outputs based on health indicators. The imperative to generate health indicators stems from recognition that whilst the short term actual failures and customer effects as a result of underinvestment may be very small; the important concerning consequence is the increase in risk of a widespread and prolonged disruption to electricity supplies or safety incident in the medium term.

Whilst we are concerned about the effect of Ofgem's proposals on customer interruptions and restoration times, we are even more concerned about matters of safety. Delaying asset replacement and system reinforcement longer than we have judged appropriate using health indices, unacceptably increases the probability of an accident.

Ofgem's disallowance of significant portions of our proposals would require a significant reallocation of expenditure to ensure essential activities can continue, reducing the amount of asset replacement in DPCR5 and thereby creating an ongoing legacy of under investment that would impact the DPCR6 and 7 programmes resulting in a prolonged reduction in service for customers in the North West.

Given Ofgem's proposed underfunding and our subsequent prioritisation of our expenditure plans, we would not be able to invest sufficiently in:

- installing flood protection works at 21 sites that would have reduced the risk to 200,000 customers;
- reinforcing 3 strategic sites in Manchester meaning that 180 000 customers will be at higher risk in the future of loss of supply or rota load shedding due to faults co-incident with high system loadings, and also increasing the lead in times for new connection activity as ENW responds reactively to customers needs;
- deferring investment in the reinforcement of overloaded sites such that the number of customers supplied from LI=5 sites increases by 41 000 compared to our submitted plan;
- replacing the switchgear at Harker leading to higher risk of disruptive failure which could have some safety implications, but will definitely create a step change in risks to consumers (and generators) in the north of the Lake District;

- replacing obsolete cables adjacent to faulted sections resulting in an increase in nuisance repeat faults and consequential increased fault costs; and,
- reducing the planned replacement of all asset types based on a view of relative priorities with a consequential increase in assets in poor condition, deterioration in overall condition and undeliverable increases in DPCR6 as detailed below.

We will continue to incentivise our Service Provider to manage costs efficiently; mirroring the incentive mechanisms in the regulatory framework. However the level of cost reductions calculated in the initial proposals does not reflect what we understand, and they inform us, can be achieved. Substantial year on year efficiency savings have been delivered in DPCR4 and were already included in our forecast business plan. We foresee that our main opportunities to secure savings would be via curtailing key forward-looking activities by for example:

- Reducing involvement in research and development activities
- Delaying the next stages in the development of CBRM
- Curtailing stakeholder engagement and development of new customer interactions, such as Demand Side Management schemes

Clearly the curtailment of such activities – whilst providing savings in the short run – would be disadvantageous to customers in the North West in the long term. These savings would go little way to addressing the shortfall in funding. Our only option in this circumstance would be to curtail investment in other areas in order to fund essential activities. Overall, your cuts to essential expenditure would require a total of £168m of expenditure to be removed from the maintenance and asset replacement programmes to restore necessary expenditure as per the following table:

Inappropriate cuts to core activities	£million
Pole replacement	20
Clearances	14
Asset Replacement	19
Non-modelled capital expenditure	7
Indirect Costs	66
Essential unfunded activities	26
IT Refresh	16
TOTAL	**168**

Our current analysis of the effect on the health of our asset base is as follows:

Asset Class	%ge of Asset Class with HI>7		
	Now	ENW's FBPQ Proposals	IP Proposals
Grid Transformers	2.6%	2.6%	4.6%
Primary Transformers	6.8%	14.8%	16.7%
Switchgear 33 kV	1.3%	2.1%	3.4%
Primary 11kV Switchgear	4.4%	1.2%	10.5%
Distribution Transformers	2.9%	3.3%	4.9%
Distribution Switchgear	2.5%	4.9%	5.9%

We explained in bilateral meetings with Ofgem staff in April and again in our June FBPQ submission that we expected the HI of some asset classes to deteriorate marginally, whilst some were held steady or marginally improved, but overall the balance of risk was appropriate, taking into account the consequences of failure in each case.

However as can be seen from the final column the IP would divert funds so that all asset classes see significant deterioration in asset health.

As you are aware from the development of our CBRM modelling techniques, deterioration and increase in the probability of failure is believed to follow a cubic law, so the increase in failure rates is quite modest over five years, but starts to accelerate beyond seven or eight years. Accordingly, to avoid future disastrous increases in asset failures we will need to increase the rate of asset replacement significantly in DPCR6 and beyond.

These levels will create significant pressure on delivery resources and plant and material suppliers and also on network outages, which ultimately may mean that plans are not deliverable.

Asset Class	FBPQ Units			IP Units		
	DPCR5	DPCR6	%ge Change	DPCR5	DPCR6	%ge Change 5 to 6
Grid Transformers	18	16	-11%	13	21	62%
Primary Transformers	28	128	357%	23	136	491%
Switchgear 33 kV	92	79	-16%	49	110	124%
Primary 11kV Switchgear	478	681	42%	482	871	104%
Distribution Transformers	1274	801	-37%	638	1100	72%
Distribution Switchgear	2086	2451	17%	1043	3267	213%

We cannot accept that the initial proposals represent the most appropriate proposals for customers in the North West as they would:

- Increase the risks faced by customer in the North West of supply interruptions due to equipment failure, system overloading and flooding.
- Cause us to curtail long-term value adding activities such as research and development and ongoing development of our industry-leading CBRM tools.
- Result in increased indirect expenditure requirement in DPCR6.
- Create an unsustainable and undeliverable jump in investment requirements for DPCR6 and DPCR7.

It is for these reasons that we are resolved to continue to work with Ofgem teams to develop a more appropriate analysis that will deliver a more sensible and balanced investment plan that recognises both the need to control costs in the short-term and to ensure the network is maintained in a sustainable state.

2 Questions

Question 1. Have we taken an appropriate approach to assessing costs?
We believe that there are significant issues with Ofgem's approach to allowance setting. The details of our concerns are outlined in our responses to chapters 3 and 4.

Question 2. What mechanism should be used to fund high value projects?
See section 3.2.7

Question 3. What assumptions do you think we should use for real price effects and ongoing efficiencies for DNOs over the 2010-15 period?
See section 4.13

Question 4. Do you agree with our proposed methods for handling uncertainty?
See our response to chapter 6.

Question 5. Are our proposals for volumes drivers on low-cost connections involving shared assets proportionate, ie is the mechanism necessary?
See section 6.1.1

Question 6. What is an appropriate materiality threshold for the operation of our proposed load related expenditure reopener?
See section 6.1.2

Question 7. Does the GDPCR reopener for TMA costs provide a good template for our final proposals for these costs?
See section 6.1.3

3 Chapter 3 – Network Investment

3.1 Methodology and update of results

We acknowledge that significant interaction has taken place with the Ofgem team since the May document, and we have submitted substantial quantities of detailed evidence in support of our forecasts as part of this process. We have been disappointed however with the lack of transparency of modelling. In marked contrast to the assessment of Operational costs, we have never been afforded sight of any of the modelling underpinning Ofgem's assessment, save for the occasional selective extract of results in some areas on which we have been asked to comment on specific variations.

We are also concerned that modelling has been applied at a highly disaggregated level and substantial use made of 'lesser of' rules such that the analysis is characterised by extensive cherry-picking of forecasts. In particular, the unit cost analysis has been conducted in the absence of a common costing framework or set of activity definitions, and then applied at a highly disaggregated level with no normalisation for different costing bases.

This means that no DNO can be judged as 'efficient', and a 'virtual DNO' set of unit costs is created, unrepeatable in the 'real world'. Far better, we contend, to have used the unit costs assessment at an appropriate level of overall analysis to show overall relative unit costing efficiency. This would have given a basis for costing adjustments without falling into the trap of cherry-picking.

3.2 Overview of core network investment proposals

It has been difficult in many instances to reconcile the published results and figures without having had sight of any of the models underpinning the Network Investment analysis. It is only recently that the teams within Ofgem have engaged on matters of detail to enable us to have a constructive dialogue based on a proper understanding of Ofgem's workings and assumptions. Emerging clarity from Ofgem suggests a number of late adjustments to the proposals and areas where the narrative does not support the methodology actually employed.

The Initial Proposals are characterised by a number of adjustments based on inputs that have not been shared with DNOs, even on a bilateral basis. Despite this, it is possible however to determine a number of concerning themes in the assessment presented in the IP;

- Where an investment need is currently unquantified but expected to emerge during the next six years (eg diversions and marginal vertical clearances), Ofgem have disqualified the forecast of associated costs.
- Unit costs have been applied at a level lower than DNOs would typically apply. For example, our 33kV overhead line costs are comparable to Ofgem's; however we have a different split of costs between supports and conductors. Ofgem's analysis cherry-picks our conductor costs with their support costs to produce a composite which is far lower than any realistic market quotation.

We strongly believe that we will still need to invest in the areas that Ofgem have disqualified, and will need to divert funding from elsewhere to meet our licence and statutory obligations. If the Ofgem proposals remained unchanged we consider that they effectively render the originally submitted LRE and NLRE outputs as null and void as much of the associated funding would need to be diverted to fund other programmes.

We comment on each section in turn below.

3.2.1 Demand Connections

We are broadly supportive of Ofgem's proposals to introduce mechanisms for demand connections reinforcement. Clearly Ofgem are still working on the detail of their proposal and we are happy to support this work and look forward to reviewing the proposals in the Autumn update.

3.2.2 Diversions

We understand from discussions with the Ofgem team that the stated cuts to our proposed increases in allowances for Injurious Affectation claims were not in fact applied to the ENW forecast. Whilst a welcome acknowledgement of the evidence of our case, this is another example of the words of the Initial Proposals not matching the methodology actually used by Ofgem.

We also note that whilst Ofgem has accepted the increases in IA claims for tower oversails (resulting in Injurious Affectation claims settled through easement purchase), they have not allowed for the concomitant increase in actual diversions resulting from similar claims on lower voltage assets where is it usually cheaper to divert rather than settle or contest (represented under 'Diversions due to terminations'). These activities form part of the same overall trend against a backdrop of increasingly aggressive activity by land agents seeking fee-based compensation claims.

Whilst we acknowledge that we can use our statutory powers to gain necessary wayleaves it is often lower cost to simply divert, underground or compensate lower voltage circuits (up to and including 11kV). As we have rejected so many wood pole wayleave terminations or Injurious Affectation claims we have anticipated a general increase in such terminations in the short term and hence have increased the general levels of expenditure in these areas, but as claims proceed the purchase of easements or compensation may be the cheapest option and therefore a diversion may not occur but we would require funding under Injurious Affectation.

The other major factor affecting the Wayleaves category in DPCR5 is the costs associated with a major project at the former Parkside colliery near Warrington, where a developer intends to create a road/rail freight interchange. The developer has been consulted and they believe that they will receive planning permission in late 2009. This will result in the need to divert 2 x 132 kV circuits which cross the site on terminable wayleaves where we will be responsible for 100% of the diversion costs. This represents approximately £5M of additional expenditure over DPCR4 levels in the 132kV element of the submission for 2012-2014.

There is an element of uncertainty regarding this one-off development, but to remove all consideration of it from the allowances will force us to divert other monies with consequential effects on service and risk.

For our forecasting of activity levels under the New Roads and Street Works Act (NRSWA) it is inappropriate to use a historical run rate or trend. There were no major programmes of diversion work for highways under NRSWA in DPCR4 which would allow the trending of work volumes. The Metrolink phase 1 was completed in 1992, phase 2 in 2001, and the Commonwealth Games construction work was completed by July 2002. We have included in our submission for phase 3a and 3b of the Metrolink extensions. GMPTE are carrying out each major phase in smaller projects, phase 3a is being delivered in 19 LV & HV sub phases of which 10 have started with orders placed and the work commencing April 2009. EHV and above has three phases, one of which we have received an order for. Phase 3b has been approved in May 2009, and discussions are on going re the sub phases, with none yet commenced.

Post the submission we have also been informed of the proposed M6 to Heysham link road which will require a number of diversions with our contribution being between £0.3-0.6m in DPCR5 which was not included in our submission.

3.2.3 General Reinforcement

Volume of added capacity

Having reduced our forecast for the June re-submission to take account of recent localised demand changes, we are surprised that Ofgem claim to have identified further schemes where the demand forecast does not support the need for investment, but have not clarified either the projects concerned, or the rationale for their exclusion. We believe that this may be due to a mistaken understanding on Ofgem's part of the reductions we made in the June submission to specific proposals for Manchester and are seeking to clarify the Ofgem team's understanding in this area.

Unit cost of added capacity

The document references use of the NLRE unit costs (3.32) which it states 'uses the industry median unit cost as the basis for comparisons'. However, the NLRE analysis is based on an 'Ofgem view' rather than the DNO median so we are left confused by the use of unit costing for reinforcement modelling. In addition, we cannot replicate the MEAV values used for the Secondary Network assessment as the product of our reported volumes and Ofgem's unit costs is a value at least £1billion higher than that used. Once again, no detail has been provided by Ofgem to allow us to replicate the numbers and have confidence that the modelling is both robust and equitable.

3.2.4 Asset replacement

Volume analysis

We have discussed the basis of replacement modelling with Ofgem and are pleased to note Ofgem's acceptance of the majority of our forecast volumes. With respect to the remaining variances, we consider each raises a specific issue relating to the weaknesses of the modelling, and are discussing the rationale for each with the Ofgem team.

In the specific area of LV cables, we believe there is a fundamental flaw in Ofgem's approach to this asset type as it has also been included in the assessment of Operational efficiency. In the Initial Proposals, we suffer a reduction in our performance to baseline (which is applied to all NOC costs) based on the inclusion of this asset type. We then receive a parallel reduction of forecast volumes based on replacement curve modelling for Network Investment. We believe this constitutes double jeopardy and Ofgem should remove cable replacement costs from their assessment of network operating costs.

Unit cost analysis

We have consistently pointed out to Ofgem that there is no standardised costing framework in use in the industry and that companies have developed individual approaches to unit costing. These approaches also have to be translated into the Ofgem asset type categorisation, and into a directs-only basis. Both of these translations introduce the potential for significant errors, in addition to the wide diversity of activity definitions extant in the base approaches.

We therefore suggest that Ofgem's use of the unit costs analysis as presented results in a flawed application of cherry-picked results from a non-standardised costing framework. We are particularly disappointed that there appears to be no normalisation for differing costing bases and that unit cost analysis has been applied at a particularly disaggregated level, assuming an inappropriate degree of modularity. We suggest that it would have been far better to use the unit cost work to produce an overall index of unit cost efficiency, to be presented in a consistent way to the Operating Costs analysis, ie through indexation to a 100% average efficiency level. This would avoid the definitional and boundary issues inherent in the approach presented in the Initial Proposals.

If Ofgem's stated unit costs purport to be those of an efficient DNO, then a true view of overall efficiency would be derived from an overall assessment that avoided the definitional pitfalls of a disaggregated application. We believe that our unit costs are within 3% of Ofgem's stated costs, when taken across the overall basket of planned replacement work.

In terms of the approach presented we also cannot reconcile the presented results based on the data provided. In particular, Ofgem misrepresents our forecast in a number of areas and apply reductions to three specific asset types where our submitted unit costs are lower than those presented in the IP document. We have asked the Ofgem team for clarity on these points and will respond in detail.

Unit costs for pole replacements

We note that Ofgem has made significant reductions to our forecast based on an assessment of pole replacement costs, and accept that we will be able to make some reductions on submitted costs with appropriate and intelligent work bundling. We also believe however that this area is another illustration of the lack of joined-up thinking in the assessment as we have neither been allowed the costs of generation, nor the alternative planned outage allowances that would be required. There is a significant trade-off effect in this area that is not acknowledged in the Proposals.

3.2.5 Operational IT and telecoms

Ofgem have made adjustments to our Operational IT forecasts based on the results of an expert survey commissioned from PB Power. This report has not been made available to us; however we have had a verbal update on its conclusions. We would like to clarify the basis of the reductions but acknowledge that this area is intrinsically linked with the development of responses to the BT21st Century project and are happy to continue the dialogue as part of that debate.

3.2.6 Legal and Safety

Disqualification of marginal vertical clearances

We note that Ofgem appear to have disqualified the whole of ENW's forecast for marginal vertical clearance rectification, ie sites not confirmed on initial survey but where the clearance was found to be sufficiently close to the statutory limit to conclude that there is a significant probability that a reasonable proportion will require remedial action following re-measurement. The movement of conductors due to changing conductor temperature resulting from ambient temperature and load current temperatures is indisputable. It is our policy to re-inspect lines which are judged compliant by a small margin as the statutory ground clearances contained within ESQCR must be maintained at all times. The HSE explicitly expect us to revisit the marginal clearances over a period of different yearly seasons, and resolve any that cause infringements.

We consider that to arbitrarily disregard this issue because it has not yet been fully quantified is inappropriate and compromises our ability to maintain statutory compliance. We know that this is not a unique issue, but we believe that our approach of using site visits to establish where marginal work is genuinely required is the right one. Other approaches risk overstating the need by simply asserting non-compliance based on observed data and assumed variations in conditions over the course of a year.

Unit costs of clearance rectification

Again, Ofgem have made reductions based on a unit cost assessment that they have not shared with DNOs. The Initial Proposals states that the method mimics that used for the ESQCR re-opener, however the values in the re-opener would indicate a requirement in excess of that we have forecast.

We have asked Ofgem to provide details of the unit costs used in their analysis so that we can determine whether their adjustments are based on particular voltages or

solution types. We understand that this assumes that the cost of rectification trends towards the cost of refurbishment over large volumes but cannot comment further without sight of the workings. We do additionally note that Ofgem have proposed a 37% overall reduction in the industry forecast for the costs of compliance which suggests that the costs assumed are unrealistic and not replicable in the 'real world'.

3.2.7 High Value projects

We have two projects in this category: Orrell reinforcement and BT21Century. Both of these have been discussed in some detail with Ofgem. We consider that the BT21st Century preparatory works will be appropriately dealt with elsewhere given the industry-wide nature of the issue, and current uncertainty in the future availability and cost of BT services.

As regards Orrell, this is a long-standing project whose cost and timescale for delivery is irrevocably wrapped up in the planning process. As such, we have reasonable control over the engineering solution within the constraints of the NGC-offered point of connection; however we are beholden to external factors and interests in respect of project cost and timescale. This introduces significant cost uncertainty both in terms of the exact costing and profile of investment.

As such, our preference would be for an ex ante allowance in line with our request followed by an ex post review, as we feel this represents an appropriate balance of risk. It will not be feasible on specific projects to provide scheme specific outputs measures – on an individual project basis, the output measure and physical activity count are essentially the same thing.

3.2.8 Overview of non-core investment

We note Ofgem's intention to use the Autumn Update as the Initial Proposals in a number of these areas and will reserve our comments until Ofgem's views become clearer.

3.2.9 Flooding

We note that Ofgem have applied a series of adjustments to flooding forecasts based on the application of a series of 'lesser of' rules that result in a significant reduction to our forecasts. Our programme is based on assessed flood risks and not £/customer considerations. Ofgem appear to be disqualifying expenditure in more risky but less populated areas.

Introducing a £/customer benchmark will incentivise investment in areas that are not necessarily at the highest risk of flooding, and discriminate against customers fed from vulnerable substations with sparser population densities. We strongly believe that this is inappropriate and counter to the principles communicated to DNOs post the Carlisle flooding of 2005 by DTI (now DECC).

We have carried out site specific surveys for 30 of the 31 substation sites we plan to protect in DPCR5 based on the risk of flooding; the estimated cost for carrying out the protection work is based on 19 completed projects in DPCR4, where the work has been divided into 'units' e.g. metre of bund wall and these units used to price the DPCR5

programme. This approach is different from most other DNOs as we have already completed a significant programme of work and therefore have accurate costs for carrying out future work. We believe that comparative unit costing can be undertaken based on the type and quantity of construction work to be carried out, and not on a £/customer basis.

3.2.10 QoS – Worst Served Customers

We note that Ofgem have retained the £/customer cap on the Worst-Served Customer programme proposal. We have repeatedly made it clear to Ofgem staff that, by setting the cap at the proposed level, we will not be able to undertake investment in this area due to the significant risks of non-recovery of investment. Worst-served customers are, by their very nature, situated in areas where the networks are exposed and require significant investment to remediate quality issues. Setting a cap close to the IIS incentive level that disadvantages these customers in the first place will not result in any programme of improvements.

We discuss this issue further in our response to the 'Incentives and Obligations' document.

3.2.11 Losses

We note that Ofgem's analysis considers that our Capacitor scheme would be cost-justified with an incentive rate of £60/MWh. We would welcome confirmation that the adjustments to the losses targets will be timed in line with the expenditure, and not applied inappropriately from Day 1 of DPCR5.

3.2.12 Link with outputs

We discuss our views on the outputs proposals in our response to the 'Incentives and Obligations' document. We are supportive of the need for outputs and the development of the proposed template. However, as articulated elsewhere, cuts in our programme of the extent put forward in the Initial Proposals render our initial outputs submission null-and-void. We look forward to working with Ofgem to reconcile investment and resultant outputs in the coming months up to the Final Proposals.

4 Chapter 4 – Operational activities

4.1 Summary

We are very surprised by the size of reductions to DNO costs – especially the cuts to required indirect cost expenditure. Such a scale of reduction is completely counter-intuitive for an industry that is currently at its fifth price control, as is our position as the DNO with largest cuts to forecast costs. It seems strange to us that, despite Ofgem acknowledging that our costs will be higher as a result of being a singleton DNO, that - due to Ofgem's approach to setting baselines for network operating costs and indirect costs - we are one of only four DNOs that are subject to an upper quartile benchmark for both network operating costs and indirect costs.

In contrast to the Network Investment area, we have had sight of the majority of models used in Ofgem's analysis and have, as a consequence, identified a number of material issues in Ofgem's current approach to assessing allowances. We note that ENW is often disadvantaged more than other DNOs as a result of these issues. These issues lead to inappropriate modelling results and force us to conclude that Ofgem's modelling approach is far from "firm but fair". Our experienced and respected econometric consultants, Oxera, advise that the analysis would currently be unable to stand up to independent scrutiny. We are resolved to ensure that the shortcomings are addressed in time for allowances to be set for DNOs. This will avoid the prospect of insufficient allowances for ENW resulting in inappropriate short-term cost cuts which will increase both short-term and long term risks and increase long-term costs to customers.

Your disallowance of significant portions of our proposals would require a significant reallocation of expenditure to ensure essential activities can continue, reducing the amount of asset replacement that we undertake in DPCR5. This would create an ongoing legacy of under investment that would adversely affect the already challenging DPCR6 and 7 programmes, resulting in a prolonged reduction in actual service and increase in service risk for customers in the North West.

We will continue to incentivise our service provider to efficiently manage costs, mirroring the incentive mechanisms in the regulatory framework; however the level of cost reductions you are suggesting does not reflect reality. We foresee that our main opportunities to secure savings would be via curtailing key forward-looking activities by for example:

- Reducing involvement in research and development activities
- Cutting back on our commitment to engage in work to enable the transition to a low carbon economy (eg trialling demand side management)
- Abandoning the next stages in the development of CBRM

Clearly the curtailment of such activities – whilst providing savings in the short run – would be disadvantageous to customers in the North West in the long term. These savings would go little way to addressing the overall £168m shortfall in funding. Our only option in this circumstance would be to curtail investment in other areas in order to fund essential activities.

We cannot accept that your proposals represent the most appropriate proposals for customers in the North West. Your proposals would:

- Result in increased indirect expenditure requirement in DPCR6.
- Create an unsustainable and undeliverable jump in investment requirements for DPCR6 and DPCR7.

We believe that a number of factors are contributing towards these inappropriate modelling results including:

- Modelling errors
- Shortcomings in data
- Inappropriate cost adjustments
- Failure to account for qualitative benefits
- Influence of erroneous preconceived views on the results
- Lack of consistency with higher level checks, such as comparisons with the DPCR4 approach or level of charges
- Large amount of subjective judgements
- Inappropriate cost drivers
- Shortcomings in the treatment of fixed costs
- The existence of boundaries between cost types and resultant cherry picking
- Speed of required improvements
- Lack of allowances for new areas of obligation

We have provided Ofgem with the details of more than 40 **errors** and flaws that we have found in the modelling. Some of these were errors that we had notified to Ofgem prior to the Initial Proposals being released.

We recognise that Ofgem has made significant progress through the RRP development in obtaining appropriate cost data for all DNOs on a broadly consistent basis. However, there are still outstanding **data consistency issues**, largely as a result of residual boundary issues, that must be recognised in modelling. The fact that DNOs are being asked to report historical costs on a different basis in the FBPQ will introduce a further level of uncertainty into the data used for comparative analysis as costs reported will not have been subject to the level of scrutiny associated with annual RRP cost reporting processes.

These data issues are further exacerbated by the use of several **cost drivers** based on measures that have not been audited with this purpose in mind. In addition, the constructed composite cost driver lacks economic meaning and interpretation and is irrational. In a number of instances, Ofgem has intervened and imposed a different set of weights than that generated by the regression model. This is very ad hoc and subjective.

We note that Ofgem has made no **qualitative assessment** of the benefits to customers of our current expenditure. This oversight means that no allowance is given for a continuation in the future of our historical and current industry leadership in a number of areas, including:

- An innovative business model that drives down the direct cost of activities – resulting in ENW's costs forming upper quartile for network operating costs against which other DNOs' costs are challenged – securing cost reductions across the industry

- Upper quartile quality of supply performance

- Pioneering research and development activities that focus on innovative development of distribution networks

- Leadership in promoting competition in connections – allowing customer choice and facilitating competition

- Leadership in the development of CBRM and outputs – allowing asset interventions to be prioritised to optimise investment plans and maximise asset lives as part of a visible commitment to deliver the right investments for customers

- Focus on securing reductions to areas of costs such as wayleaves and NGET exit charges reducing overall bills to customers during DPCR4 and DPCR5

- Identifying excluded service revenue opportunities that reduce overall bills for customers

Ofgem's over-reliance on inappropriate models to the exclusion of qualitative assessment of the service provided to customers is short-sighted and will be unsustainable in the long-run.

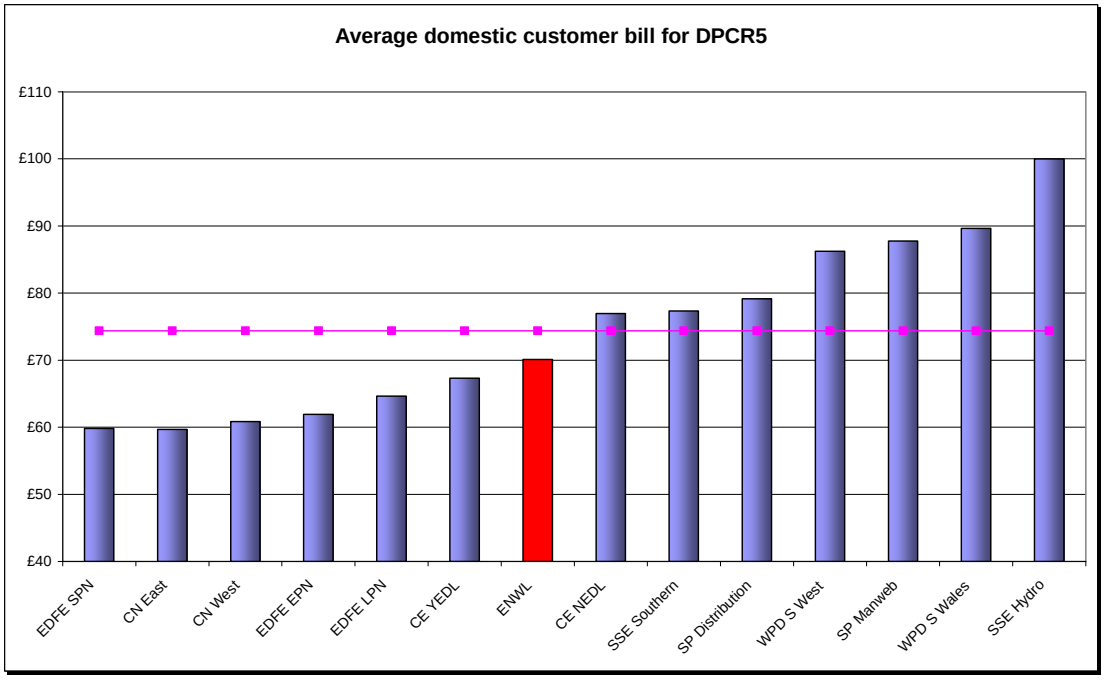
We also note that in the one area where Ofgem have used some "sense-checks" – namely to test against their own **pre-conceived view** of DNO efficiency – their tests are made against an erroneous view of DNO efficiency. Such inaccurate pre-conceptions risk chasing models that provide an assumed "correct" result rather than the more rigorous approach of allowing the overall approach to determine efficiency. Several pieces of evidence suggest that Ofgem's pre-conceived view of DNO efficiency is flawed.

Ofgem's view of which DNOs are most efficient is contradicted when compared to a replication of Ofgem's own analysis at DPCR4. Replication of **Ofgem's own analysis at DPCR4** approach produces very different results from those presented in the Initial Proposals. The table below shows that ENW, CNW and SPD are particularly disadvantaged by the proposed DPCR5 approach with SSE Hydro showing a massive increase in apparent efficiency.

Comparison of efficiency results obtained via Ofgem's DPCR4 methodology and results presented in Initial Proposals

	2008/09 NCCF		Ofgem IP (average of NOC and indirects)		Ofgem IP (top down)	
	Efficiency	Rank	Efficiency	Rank	Efficiency	Rank
CN West	101%	9	119%	14	106%	10
CN East	87%	3	93%	4	85%	2
ENW	94%	4	102%	8	112%	14
CE NEDL	97%	7	100%	7	97%	6
CE YEDL	95%	5	95%	6	96%	4
WPD S Wales	95%	6	94%	5	101%	8
WPD S West	99%	8	93%	4	102%	9
EDFE LPN	128%	14	106%	10	100%	7
EDFE SPN	124%	13	110%	11	109%	12
EDFE EPN	114%	12	117%	13	112%	13
SP Distribution	77%	1	105%	9	96%	5
SP Manweb	105%	11	111%	12	109%	11
SSE Hydro	102%	10	82%	2	86%	3
SSE Southern	86%	2	78%	1	85%	1

It is also important to note that Ofgem's view of DNO efficiency is not consistent with the **charges to be paid by customers**. While we recognise that there is not a one-for-one linkage between operating costs and charges, we consider that this is a useful sense check of the results and one that many UK regulators undertake. The graph below clearly shows that the customers within areas that Ofgem assesses as most efficient actually pay more.



We observe many references to "**regulatory judgement**" being used to develop models without evidence of why the chosen basis is most appropriate. We see little sign of other evidence being used to challenge the results of deterministic models.

We also note that, despite recognising the additional fixed costs incurred by **singleton DNOs**, that Ofgem makes no allowance for this in setting baselines for indirect costs; Ofgem's costs fall short of providing sufficient allowances to fund an efficient singleton DNO. This results in a strong incentive for further consolidation in the industry and it is not clear that this would be of benefit to consumers and is in stark contrast to Ofwat's approach to independent comparators.

Ofgem provides no **time for management to make the target improvements**. This implies that Ofgem considers that it is absolutely certain of the accuracy of its upper quartile benchmark of indirect costs (and beyond, as there must be some 'carrot' to provide an incentive for companies to outperform) and that it is achievable immediately. This is not practicable.

Ofgem provides **no allowances for new areas of obligation**. When faced with new obligations without appropriate funding, DNOs will be forced to further curtail activities such as asset replacement in order to discharge their new responsibilities.
We propose below a number of changes to Ofgem's modelling approach that we believe would improve the quality of modelling and correct for some of the more significant inequalities and errors.

4.2 Recommended modelling changes

In order to correct the most fundamental flaws and iniquities in the modelling approach embodied in the Initial Proposals, we recommend that Ofgem make the following changes to their modelling approach to address the key issues. These are the minimum changes that must be made before the modelling approach can be considered to be appropriate. There will inevitably be further outstanding modelling issues that we would be happy to work with Ofgem to address during DPCR5 in order to further improve modelling quality (For example, at the moment we have tried to remain as close to Ofgem's approach as possible, but consider that other approaches, such as DEA and SFA, also warrant further investigation). We explain these proposals in more detail later in the document.

Issue	**Recommendation**
Inappropriate costs included / excluded within models	Remove IT and property costs from models to recognise unique drivers of these areas of expenditure. Allowances for these activities should be based on consultant review
	Include non QoS faults within models to reduce current boundary issue
Inappropriate cost normalisation used within models	Remove cable replacement costs from models to avoid double counting
	Make regional cost adjustments for EDF LPN only and limit adjustment to activities that must be undertaken within DNO's operating area
Inappropriate cost drivers	Adjust measure of direct costs used to model indirect costs to include Ofgem's modelled efficient costs for network operating costs rather than actual costs – removing the perverse advantage to DNOs

Issue	Recommendation
	whose network operating costs are inefficient
	Remove false weighting of drivers by including Ofgem's identified drivers within multivariate models
	Cease to use "Single Group" model – recognising that "Groups" models more correctly reflect drivers of expenditure"
Lack of acknowledgement of fixed costs that can be shared by DNOs within same ownership group	Model "Group 2" by DNO Group recognising that many of these costs eg call centre, control centre can be shared by DNOs in the same ownership group
	Cease to use "Single Group model" as this does not correctly recognise the extent to which fixed costs can be shared by DNOs in the same ownership group
Inappropriate choice of benchmark given modelling shortcomings eg obvious boundary issues and poor statistical test results	Combine results on NOC and indirect cost models to create benchmark – reducing the impact of cherry picking across NOC and indirect costs
	Use independent top down models to test validity of core model results
	Consider qualitative assessment of activities undertaken by DNOs in determining an appropriate benchmark
Shortcomings in rolling forward baseline costs to DPCR5	Adjust catch up and frontier shift assumptions to recognise that it will take time for DNOs to reduce their costs to proposed levels and that is impossible for DNOs to catch up to baseline costs by 2008/09 by assuming DNOs catch up to baseline over the five years of the price control period and applying frontier shift assumptions from 2010/11
	Provide allowances for new areas of obligation eg output reporting, condition data capture, new guaranteed standards, requirement to undertake customer surveys
Insufficient allowances for non-modelled costs	Provide appropriate allowances where DNOs face increasing cost pressure eg dismantlement, wayleaves
	Consider relative efficiency in setting allowances to ensure incentive on DNOs to manage efficiency eg low volume high value faults
	Ensure allowances are consistent with other decisions within proposals eg substation electricity

In order to illustrate the volatility of Ofgem's modelling and its sensitivity to changes, we present below for illustration the effects of making seven of our proposed changes on indicative allowances for DPCR5. These are

- Reverse cable replacement costs to avoid double counting with network investment approach
- Remove IT and property costs from modelling – reflecting the unique drivers of these activities
- Make regional cost adjustments for EDF LPN only and limit adjustment to activities that must be undertaken within DNO's operating area
- Recognise that most activities within "group 2" indirects include significant fixed costs that can be shared by companies within the same ownership group.
- Cease to use "Single group" within modelling recognising that it does not correctly reflect drivers of expenditure and does not model fixed costs that can be shared by DNOs in same ownership group
- Remove false weighting of drivers by including Ofgem's identified drivers as independent variables within multivariate analysis
- Adjust measure of direct costs used to model indirect costs to recognise Ofgem's modelled efficiency of network operating costs – removing advantage to DNOs whose network operating costs are inefficient

Comparison of Ofgem's efficiency scores in IP with those after revisions proposed by ENW

	Ofgem's IP (core models)				Revised results			
	NOCs		Indirects (average of single group and groups)		NOCs		Indirects (groups)	
	Efficiency	Rank	Efficiency	Rank	Efficiency	Rank	Efficiency	Rank
CN West	134 %	14	101%	8	137%	14	106%	9
CN East	97%	6	85%	3	112%	10	86%	3
ENW	86%	3	117%	12	74%	2	108%	12
CE NEDL	109%	9	92%	5	100%	7	98%	5
CE YEDL	113%	11	79%	1	112%	10	82%	2
WPD S Wales	91%	5	98%	6	93%	5	99%	6
WPD S West	99%	7	88%	4	97%	6	89%	4
EDFE LPN	88%	4	119%	13	109%	9	142%	14
EDFE SPN	112%	10	103%	9	121%	12	106%	11
EDFE EPN	106%	8	126%	14	125%	13	125%	13
SP Distribution	116%	12	99%	7	74%	2	101%	7
SP Manweb	119%	13	103%	10	102%	8	106%	10
SSE Hydro	59%	1	105%	11	64%	1	101%	7
SSE Southern	77%	2	81%	2	78%	4	76%	1

Additionally, we have combined the results of the models for network operating costs with those of indirect costs, and calculated a combined efficiency score in order to reduce the effect of cherry picking across the two areas of activities. This analysis delivers the efficiency scores in the following table.

Comparison of Ofgem's combined NOC and indirect efficiency scores with combined efficiency score after revisions proposed by ENW

	Ofgem's IP (average of single plus groups)	Ofgem's IP (groups)	Revised efficiency scores – adjusted for 7 changes described above (groups)
CN West	106%	114%	118%
CN East	85%	89%	97%
ENW	112%	101%	94%
CE NEDL	97%	100%	99%
CE YEDL	96%	92%	94%
WPD S Wales	101%	98%	96%
WPD S West	102%	93%	93%
EDFE LPN	100%	113%	131%
EDFE SPN	109%	110%	113%
EDFE EPN	112%	117%	125%
SP Distribution	96%	104%	91%
SP Manweb	109%	112%	104%
SSE Hydro	86%	90%	83%
SSE Southern	85%	76%	77%

We calculate that the use of this combined baseline, together with the seven changes to Ofgem modelling approach described above, would provide ENW with an extra £55m revenues for the DPCR5 period.

This clearly shows the very large change to results that can arise due to a small number of changes to assumptions – illustrating the sensitivity of Ofgem's models to their modelling assumptions.

Statistical test results show that these proposed changes have improved the models, but Ofgem needs to keep looking for further improvements.

Clearly, such material changes to modelled efficiency call into question the robustness of Ofgem's modelling. This magnitude of potential change in modelled costs show that Ofgem's modelling approach has been inappropriate, with an unwarranted adverse effect on ENW. It is concerning that such cuts were not challenged by Ofgem's own tests of the appropriateness and credibility of the proposals. If Ofgem makes the changes we list above we believe that we will be able to start to take Ofgem's analysis more seriously.

It is important to recognise that, even with these changes, the results would still not recognise the quality of customer service provided or increased cost pressures due to new obligations. The range of results from our model, combined with the fact that the models still remain poor especially in some areas, still suggest that differences between DNO costs and modelled costs cannot be confidently assumed to be attributable to relative efficiency alone. (We have yet to examine this issue in detail,

but approaches are available to assess the level of precision in the modelling and hence the confidence that can be applied to these results and we consider that Ofgem should examine these). Ofgem would still need to use caution in using model results to set allowances by adjusting for any errors or noise in the modelling, providing the potential for outperformance (ie, a "carrot") and allowing enough time for any proposed improvements to be made.

We now explain these proposals in more detail in the order discussed in Ofgem's Cost Assessment paper.

4.3 Costs included within benchmarking

We agree that it is not sensible to assess required expenditure via comparative methodologies where:

- DNOs have no influence over costs eg business rates, licence fee
- Costs are only incurred by some DNOs and not others eg island generation
- Where DNOs incur expenditure at different rates for legitimate reasons that cannot be factored into models eg wayleave costs, pensions, lane rentals, IT investment

We agree with Ofgem that "lumpy" or one-off costs should not be included within core models and are therefore very surprised that Ofgem have persisted with including IT and property indirects and non-operational capex expenditure within models. The ability to make changes to this part of the cost base is very different and requires separate analysis to understand required expenditure. Averaging of non-operational capex over ten years does not take into account the drivers of non-operational capex expenditure in DPCR5. We supported the appointment of Ofgem's consultants in these areas. They spent considerable time with us gaining good understanding of our plans; we would therefore expect that their report is the most appropriate basis for setting allowances.

We also agree with Ofgem that boundary issues associated with cost exclusions should be understood. Given that, we do not understand why Ofgem has removed non QoS faults from models given recognised boundary issues between QoS and non-QoS faults.

We recognise that Ofgem has made significant progress through the RRP development in obtaining appropriate cost data for all DNOs on a broadly consistent basis. However, there are still outstanding data consistency issues, largely as a result of residual boundary issues, that must be recognised in modelling.

During the FBPQ process to date Ofgem have concluded that an RRP designed to ensure consistency with DPCR4 rules has not captured sufficient data to assess comparative efficiency. The fact that DNOs are being asked to report historical costs on a different basis in the FBPQ introduces a further level of uncertainty in the data used for comparative analysis as costs reported will not have been subject to the level of scrutiny associated with annual RRP cost reporting processes.

It is hugely disappointing that, given the time and resource expended on developing the RRP to support NCCF modelling, that these approaches have been largely ignored, even as a sense check, in favour of a clearly less robust set of models. Going forward it will be important to develop cost reporting to provide the right data for comparative efficiency, rather than develop comparative efficiency approaches that work with the data available. For DPCR5, NCCF must form a key component of modelling approach given that it is the only cost reporting basis that has been consistently audited throughout DPCR4 via the annual RRP process.

4.4 Normalisation adjustments

We agree that it is appropriate to adjust modelled costs to ensure that comparisons are made on an equivalent basis. Before making adjustments Ofgem must have evidence of genuine distortion of costs and a robust methodology for making adjustments. We have severe reservations about some of the adjustments proposed by Ofgem; both their appropriateness and the availability of appropriate methodologies to make adjustments.

We have also identified a very significant number of errors in Ofgem's approach to normalisation modelling that undermine our confidence in its application.

We are concerned that those companies currently modelled as forming the frontier are those with greatest proportions of costs excluded from core models. We urge Ofgem to review the basis that costs have been calculated to ensure that costs excluded are only those directly associated with excluded activities. Ofgem should also test for distortions by including top down models that include those costs excluded from bottom up analysis.

We agree that related party margins should be included in Ofgem's models. This avoids distorted modelling results allowing the true relative efficiency of related party costs and margins to be revealed.

We believe that the legitimate differences in pension contribution rates between DNOs will distort modelling results disproportionally if pension costs are included within modelled costs. The normalisation of pension rates within models, whilst superficially attractive, will simply create problems of determining the appropriate level of modelled costs to be removed to avoid double counting with pension allowances. We are pleased that Ofgem has removed pension costs from its models; however we urge Ofgem to ensure that all pension costs are excluded including pensions admin costs and costs of PPF levy which – in part – currently remain within modelled costs.

We disagree with several other components of Ofgem's approach to normalisation adjustments:

- We believe that IT and property costs (both indirect and non-operational capex) should be excluded from core models. The drivers of these areas of expenditure are complex and are not adequately considered within comparative models. Allowances for these areas of expenditure are best set via detailed review of expenditure requirements.

- The inclusion of cable replacement costs within models double counts this area of expenditure in both network operation costs and network investment analysis. Ofgem's own analysis demonstrates the very material impact of the inclusion of these costs on DNOs' modelled efficiencies. These costs should not be brought into network operating cost analysis to avoid this double counting.

- We have previously provided Ofgem with evidence demonstrating that any regional differences in costs are limited to the Greater London area and are disappointed that this evidence has been ignored. Additionally we notice that regional cost adjustment has been incorrectly calculated applying adjustments to, for example, LPN's call centre which does not need to be regionally located.

- The exclusion of some of EDF's indirect costs falls some way short of the robust adjustments we would expect in core comparative efficiency models. To adjust costs based on limited information provide by one DNO group and without considering whether other DNOs may be similarly affected risks material distortions to results. We fully accept that DNOs who either insource activities or who have increased transparency of contractor costs will be disadvantaged in Ofgem's current models; in the case of our own costs by insourcing, for example, all design activities. As a result of reporting all our Service Provider's costs against RRP rules our indirect costs are higher than average resulting in perceived "inefficiency". We had provided evidence demonstrating this to Ofgem prior to the IP and are disappointed that it has not been recognised. Ofgem must take steps to adjust for the inherent favouring of companies who outsource in their models via a systematic approach, including top down models that include capex, rather than making one-off adjustments for a small proportion of DNOs.

- We agree that companies that work in particularly urban areas may incur greater costs. We are concerned that Ofgem's current approach to making adjustments for urbanity based on GWh per local authority area may be distorted by levels of industrial customers and by local authority sizes and the relationship between authority boundaries and major urban areas; this is evidenced in the fact that Edinburgh, Cardiff, Newcastle and Salford do not trigger urbanity thresholds. We recommend that Ofgem use % LV underground as an alternative measure of urbanity in calculating any normalisation adjustment.

4.5 Cost drivers

It is extremely important that cost modelling approaches recognise the real drivers of costs. Models that ignore drivers of cost and changes in drivers will incorrectly influence allowance calculations.

We have identified a number of errors in Ofgem's measurement of cost drivers. We also note that Ofgem have not taken account of differences of recording basis for data used as cost drivers. For example, we are aware that Scottish Power record "spans managed" where other DNOs record "spans cut" – Scottish Power will therefore be advantaged in tree cutting efficiency models by the proportion of spans that they visit but find no need to cut trees. We believe that significant effort was put into

normalizing this area for the ESQCR reopener, and we are therefore surprised that it remains an issue.

We are concerned that the wide range of results combined with poor goodness of fit values suggests that Ofgem's models omit several key drivers of costs or that drivers have been incorrectly combined in composite scale variables. It is wrong to assume that the differences between modelled costs and DNO costs are solely attributable to inefficiency.

We are concerned that the subjective capping of driver weightings in composites is contributing to poor functional fit and producing inappropriate results. The artificial constraining of cost drivers within composites consistently disadvantages ENW. We recommend that Ofgem allow the weighting of drivers within models to be determined via multivariate modelling – removing any subjectivity for weighting of drivers within composites. Ofgem has a sufficiently large data to use multivariate analysis.

We are particularly concerned that Ofgem's Single Group model does not contain sufficient cost drivers to adequately model the drivers of indirect costs. We recommend that Ofgem base their analysis on their Groups analysis which includes more appropriate cost drivers.

It is important that Ofgem recognise the results of the network operating cost efficiency results in considering the impact of volumes of direct activities on indirect costs. Perversely, those DNOs who are particularly inefficient at network operating costs will be advantaged in all models using total direct costs as a driver – as a result of their expenditure being more inefficient than that of other DNOs. It is possible to adjust for this by calculating the cost drivers based on predicted or efficient network operating costs rather than actual costs. This removes the current disadvantage to companies with most efficient network operating costs. This has been undertaken in the table below. This clearly shows the extent to which companies' results are currently distorted by not adjusting for this phenomenon, illustrating the current benefit for having inefficient network operating costs as well as the disadvantage to companies with most efficient network operating costs.

Comparison of Ofgem's indirect efficiency scores with indirect efficiency score modelling using efficient network operating costs as component of direct cost driver

	Ofgem IP indirects efficiency score – (average of single groups and groups results)	Revised indirect efficiency score - adjusted for network operating cost efficiency (average of single groups and groups results)	Revised indirect efficiency score - adjusted for network operating cost efficiency (groups)
CN West	101%	103%	103%
CN East	85%	84%	83%
ENW	117%	113%	108%
CE NEDL	92%	96%	98%
CE YEDL	79%	82%	81%
WPD S Wales	98%	100%	104%
WPD S West	88%	90%	91%
EDFE LPN	119%	125%	131%
EDFE SPN	103%	106%	111%
EDFE EPN	126%	127%	124%
SP Distribution	99%	97%	96%
SP Manweb	103%	102%	106%
SSE Hydro	105%	104%	111%
SSE Southern	81%	78%	73%

We note that none of Ofgem's models utilise the cost drivers used in DPCR4 analysis. We recommend that Ofgem includes top down models using the components of the DPCR4 CSV as checks of the validity of their bottom up models.

4.6 Modelling of costs that can be shared within ownership group

We are pleased that Ofgem has recognised that some costs can be shared by DNOs in the same ownership group and that this sharing can also distort models as a result of inaccurate approaches to apportioning fixed costs between DNOs in the same ownership group. The group-based analysis undertaken by Ofgem to date demonstrates this to be the case. However, failure to adjust allowances to recognise singletons is an incorrect approach. The indirect costs of an efficient singleton must be allowed for ENW.

We are very concerned that Ofgem's recognition of scope to share costs within ownership groups is diluted by their use of the Single Group model in their benchmark calculation. This model does not take into account the scope for DNOs within the same ownership group to share costs and as such underestimates efficient costs required of a singleton DNO.

Finance & regulation, CEO, network policy, IT, property, EMCS, control room, call centre and HR activities all have large elements of fixed costs that can be shared between companies within one ownership group. We believe that analysis of these activities should be evaluated on an ownership group basis, with allowances set per ownership group, not per licensee.

Many other activities can be shared to a smaller extent eg Network Design and Engineering (for system planning activities), Engineering Management and Clerical Support (for central administration teams), Vehicle and Transport (asset planning activities), Project management (overall Programme Management activities), etc. The extent to which companies can share these costs should also be taken into account in allowance setting.

The effect of recognising that the activities within group 2 contain material fixed costs that can be shared by DNOs within the same ownership group is demonstrated in the table below.

Comparison of Ofgem's indirect efficiency scores with indirect efficiency score modelling group 2 indirects on a group basis

	Ofgem IP indirect efficiency score (average of single group and groups)	Revised indirect efficiency with group 2 modelled on a DNO Group basis (average of single group and groups)	Revised indirect efficiency with group 2 modelled on a DNO Group basis (groups)
CN West	101%	102%	104%
CN East	85%	85%	84%
ENW	117%	117%	109%
CE NEDL	92%	93%	96%
CE YEDL	79%	80%	79%
WPD S Wales	98%	100%	105%
WPD S West	88%	89%	90%
EDFE LPN	119%	122%	132%
EDFE SPN	103%	105%	112%
EDFE EPN	126%	127%	124%
SP Distribution	99%	100%	99%
SP Manweb	103%	104%	108%
SSE Hydro	105%	108%	117%
SSE Southern	81%	81%	75%

We recommend that Ofgem model group 2 and group 3 on a DNO group basis.

4.7 Choice of benchmark

In establishing the benchmark to be used for allowance setting Ofgem must take into account:

- Shortcomings in the data used for modelling
- Boundary issues between models as a result of operating structures and DNO decisions as well as reporting irregularities
- The "cherry picking" effect of choosing separate benchmarks for each cost grouping, including setting separate allowances for capex and opex activities
- The exacerbation of this cherry picking effect as a result of insourcing and outsourcing strategies influencing the modelled efficiency in each cost block.

- The fact that different DNOs form the upper quartile in NOCs and indirects meaning that setting baselines for companies based on upper quartile in both models is inappropriate
- The extent to which cost groupings include fixed costs and whether these can be shared by DNOs within ownership groups
- The level of customer service provided by each DNO and the impact this has on value for customers
- The quality of the outputs that a DNO has committed to for DPCR5
- The level of efficiency for the DNO as suggested by a range of top down models
- The extent to which apparent "inefficiencies" may be a result of the limitations of modelling approach

The potential errors associated with cost exclusions, normalisation adjustments, choice of relevant drivers, measurement of drivers, selection of an appropriate functional form of the model and legitimate differences that can never by fully normalised for in models mean that appropriate "sense checks" are essential. We recommend an approach to combining network operating cost and indirect cost baselines to reduce the materiality of cherry picking as well as suitable top down models checks later in this section.

Where there is any doubt as to the validity of model results Ofgem must conclude that the DNO's current cost base is efficient.

4.7.1 Statistical test results

We agree that it is sensible to use standard statistical tests to test the validity of results. We notice in particular that several of the statistical test results for Ofgem proposed models fall some way short of the levels that suggest that full confidence can be placed in modelling results; indeed several of the models are seen to fail.

- We notice that Ofgem's results show very low R^2 for a number of models. Of particular note is the result for Group 1 indirects with an R^2 of 0.3. An average R^2 of 0.6 across all models must reduce confidence in the validity of results.

- We also note that there are a number of failures of various other statistical tests across models. We are pleased to see that, where a models fail tests, Ofgem have indicated that these models will be investigated further

Faced with such poor statistical test results we are surprised that Ofgem has sufficient confidence in the output of their models in their baseline setting process. We recommend that Ofgem examine the accuracy of their inefficiency estimates and urge caution in translating model results into allowances given the poor test results observed.

4.7.2 Boundary issues

The bottom-up nature of Ofgem's analysis fails to take into account a number of boundary issues that distort the levels of expenditure reported by each DNO for each bottom-up category of expenditure. Boundaries result for a number of reasons including:

- Operating structure, eg
    - Insourcing arrangements (companies who insource a greater proportion of work report higher levels of indirect costs eg design costs)
    - Contract arrangements – structure of invoices (eg we report all costs incurred by our Asset Service provider against RRP rules whereas others would absorb many more indirects into direct activities)
    - Structure of ownership group (eg allocation of fixed costs between DNOs in the same ownership group)
- Company decisions, eg
    - Active promotion of competition in connections (eg we incur materially higher design costs as a result of the high levels of competition in connections and a high level of penetration of complex IDNO projects in area resulting in a requirement for multiple quotes for different points of connection and considerable engineering support. Models that consider the value of own direct expenditure would suggest these efficient costs are "inefficient")
    - Automation of processes (eg our automation of many System Mapping activities has reduced drawing office costs but increased IT costs)
    - Capex/ opex investment decisions (eg DNOs who have invested in unusually high levels of capex in previous years may benefit from reduced operating costs)
    - Levels of QoS service (eg DNOs offering a high level of QoS service may incur higher levels of fault, control room and IT costs)
- Reporting, eg
    - Transparency of contract costs
    - Interpretation of non QoS fault cost definitions
    - Consistency of reporting of costs excluded from comparative models eg submarine cables

It is essential that Ofgem recognise the legitimate differences in reported cost structures that can arise - as a result of cost reporting rules - depending on the factors outlined above. The cost reporting rules will result in different efficient levels of direct and indirect expenditure dependent on operating structures. We urge Ofgem to be aware of the exacerbating effect that these boundaries will have on "cherry picking" that inevitably exists in bottom up modelling. It will prove very difficult to normalise for this within any disaggregated cost model that analyses separate blocks of costs.

The existence of multiple unaddressed boundaries within Ofgem's models, combined with models that do not take into account all drivers of costs and have not accounted for all data issues, is resulting in "cherry picking" of modelled results. This results in different DNOs forming the frontier in different models, resulting in inappropriate overall results. This is apparent in the very wide range of overall efficiency results; it is counter-intuitive to believe that so many DNOs are spending at levels so different to

those suggested by models. This effect is further aggravated by different companies forming the upper quartile within NOC and indirect analysis; it is notable that most companies within the network operating cost UQ are below average on indirect costs and half of the companies within indirect upper quartile are below average on NOCs. This suggests that operational trade-offs exist, ie that different operating models drive different apparent "efficiencies" in the different cost groupings.

This is further compounded by the fact that Ofgem are pursuing separate approaches to allowance setting for opex and capex activities. As capex benchmarks are considering only direct costs, those companies who insource capex are likely to be deemed more efficient and form capex benchmark whereas companies who outsource will tend to form the benchmark for indirect and opex activities, resulting in an overall benchmark that is disproportionally stringent.

Cherry picking will also occur as a result of the extent to which DNOs within the same ownership group can share fixed costs. This will disadvantage singleton DNOs.

We recommend the following steps that Ofgem should take to normalise for cherry picking. Firstly, Ofgem should seek to calculate a combined efficiency score based on the results of NOC and indirect models (see 3.7.3) and, secondly, they should undertake independent top-down modelling including all costs to test for the extent of cherry picking – for all DNOs – and to adjust allowances accordingly (see 7.3.4).

4.7.3 Proposed combined baseline across NOCs and indirects

The fact that different DNOs form the upper quartile in network operating cost and indirect cost models creates an artificial, cherry-picked, baseline. This phenomenon is extreme for ENW as, despite Ofgem acknowledging that it incurs extra costs as result of being a singleton, it is one of only four DNOs set allowances based on upper quartile in both network operating cost and indirect cost models.

It is possible to adjust for this by combining the results of the models for network operating costs with those of indirect costs and to calculate a combined efficiency score, using the methodology that Ofgem uses to combine results in bottom-up models to calculate network operating cost and indirect cost baselines. The following table shows the efficiency scores on combined model results without changing any of Ofgem's other IP modelling assumptions. We estimate that mitigation of current cherry picking by implementing this change would result in the restitution of £27m into the allowance for ENW over the DPCR5 period.

4.7.4 Top down models

It will always be necessary to use top-down analysis to assess the scope for cherry picking in more disaggregated cost models. We urge Ofgem to model a range of alternative top-down models incorporating different cost constructs and different drivers to test for any systematic errors in their core model.

It is important to recognise that DNOs have been incentivised to improve efficiency as measured by the models utilised in DPCR4, particularly Normalised Controllable Costs and Faults. It will be important to repeat the analysis of DPCR4 as a reference point from which to evaluate new methods and to demonstrate a degree of regulatory

consistency. We understand that Ofgem has undertaken such analysis and that the results suggest very different levels of comparative efficiency than Ofgem's core models. We urge Ofgem to include these models based on DPCR4 approach as part of a range of models used to test the validity of results.

4.8 International comparisons

We are pleased that Ofgem have recognised that international comparisons are inappropriate given comparability issues, especially given the issues of comparability that currently exist within the industry. Differences seen between countries in international comparisons are more likely to result from differences in responsibilities, ownership structures and regulatory approaches or the level of development of regulatory cost definitions rather than genuine differences in efficiency. We do not believe that data sets that are comparable with RRP or FBPQ data are available anywhere outside the UK.

4.9 ENW's proposed changes to core models

We suggest a small number of fundamental changes to Ofgem's core models. Making just eight changes to Ofgem's core models results in a sensible £55m increase to ENW's allowances for DPCR5.

We propose that, as a minimum, Ofgem:

- Reverse cable replacement costs to avoid double counting with network investment approach
- Remove IT and property costs from modelling – reflecting the very unique drivers of these activities
- Make regional cost adjustments for EDF LPN only and limit adjustment to activities that must be undertaken within DNO's operating area
- Recognise that most activities within "group 2" indirects include significant fixed costs that can be shared by companies within the same ownership group
- Cease to use "Single group" within modelling recognising that it does not correctly reflect drivers of expenditure an does not model fixed costs that can be shared by DNOs in same ownership group
- Remove false weighting of drivers by including Ofgem's identified drivers as independent variables within multi-variant analysis
- Adjust measure of direct costs used to model indirect costs to recognise Ofgem's modelled efficiency of network operating costs – removing disadvantage to DNOs whose network operating costs are efficient
- Combine results on NOC and indirect cost models to create benchmark – reducing the impact of cherry picking across NOC and indirect costs

These proposed changes improve the robustness of modelling by:

- Removing distorting affect of costs with unique cost drivers
- Removing double count between operating cost and investment cost assessment
- Removing arbitrary capping of composite cost drivers
- Placing greater weighting on models that include more appropriate drivers of indirect costs
- Removing current disadvantage to DNOs with efficient network operating costs
- More appropriately recognising the extent to which fixed costs can by shared by DNOs in the same operating group
- Adjusting for the demonstrable cherry picking associated with separate NOC and indirect cost baselines
- Improving results of statistical tests

4.10 Proposed allowance setting for non-modelled costs

It is important that DNOs receive appropriate allowances to fund those activities that are excluded from analysis.

In setting allowances for excluded costs, it is of fundamental importance to recognise the potential boundaries between modelled costs and costs excluded from modelling and the implications for distortions in resulting allowances.

We believe that insufficient data is available on the long-term costs and drivers of IT and telecoms and property costs to assess these via comparative analysis. The very specific drivers of IT and property costs mean that their inclusion in models with drivers such as MEAV and direct costs is likely to give inappropriate results. We believe that Ofgem should set allowances for these areas of expenditure via consultant review and should remove these costs from comparative models. Ofgem's consultants spent considerable time with us, gaining understanding of our investment requirements. Ofgem's well-informed consultants are far better suited to assessing these largely fixed costs than a model regressed against MEAV or direct costs.

There are a number of flaws in Ofgem's approach to setting allowances for non-modelled costs.

- Failure to recognise externally-driven increases to cost pressures eg
    - We have a number of idle assets that we will remove over the DPCR5 period. Following a serious public safety incident in 2007 we have identified a number of lightly loaded substations in urban and suburban areas that are vulnerable to attack, vandalism and theft. We have

agreed with the HSE that where such substations are normally loaded, we will make the substation more secure; however where substations have become lightly loaded due to load migration and churn, we will remove the substations in the interest of public safety. Approximately 100 substations have been identified to date that we plan to remove. We know that several other DNOs face similar challenges; although without the direct HSE pressure they may not have developed associated plans. Ofgem's current approach of setting allowances based on the historical average spend does not correctly reflect the increased cost pressures due to increased volumes of required work in this area. We recommend that Ofgem follow an approach similar to that used in assessing capex projections – considering required volumes of work and unit costs – in setting benchmarks for this activity.

- Failure to test for and reward relative efficiency

    - DNOs have seen increasing upward pressure on wayleave costs recently as a result of increased pressure from land-owners to secure increased remuneration from DNOs on their land. ENW has made significant efforts to delay and mitigate the extent of these changes. By setting costs based on average of DPCR4 plus an uplift penalises those DNOs who pushed back against cost increases; ENW would have received a higher allowance if we had simply paid out in response to requests for increased payments.

    - Ofgem's modelling clearly demonstrates that ENW's network operating costs are within the efficiency upper quartile. Setting allowances for Low Volume High Cost faults based on average of historical costs without taking into account the relative efficiency of network operating costs disadvantages DNOs – like ENW - who can demonstrate efficient network operating costs.

- Inconsistency with other components of proposals

    - The allowance for substation electricity is set in an inconsistent way to the losses calculation – an allowance is needed as DNOs now have to register own use electricity within settlements. Allowances for substation electricity should be set in line with decision on how to account for losses and own-use electricity. The chosen rate should be consistent with the new losses calculation and incentive rate.

- Failure to recognise boundaries with modelled costs

    - Ofgem recognise that significant boundaries exist between reported non QoS fault costs and reported QoS fault costs. Setting QoS fault costs based on results of a model and non QoS faults based on the average of historical costs advantages DNOs who report high levels of non QoS faults. Ofgem's own analysis had previously suggested that ENW's non QoS faults were at 32% of benchmark. Clearly, setting allowances based on average historical costs materially disadvantages ENW in this area. These costs should be included within core models.

4.11 Rolling forward the results to DPCR5

We recommend that, as part of their top-down tests and comparator models, Ofgem assesses their level of confidence in the results of their modelling approach.

We note that Ofgem provides no time for management to make the target improvements; indeed it assumes that DNOs have caught up the efficiency gap by the end of 2008/09. This implies that Ofgem considers that it is absolutely certain of the accuracy of its upper quartile benchmark of indirect costs (and beyond, as there must be some 'carrot' to provide an incentive for companies to outperform) and that it is achievable immediately. This is not achievable in practice. We recommend that Ofgem should recognise the uncertainty in the results of their modelling and allow DNOs an appropriate period of time – we suggest five years – to catch up to modelled cost levels.

4.11.1 Network operating costs

We are pleased that Ofgem has acknowledged that DNOs will incur extra cost pressure in some areas of network operating costs for DPCR5. We note, however, that no increase has been made to recognise increased requirements for condition data capture as a result of the implementation of outputs reporting proposals. Whilst ENW has incurred costs during DPCR4 not all other companies have incurred similar levels of expenditure which we believe has artificially reduced modelled efficient inspection and maintenance costs. The fact that ENW's condition data capture costs were lower than average in 2008/09 (because data capture was scheduled to allow inclusion in August 2008 HLFBPQ submission) exacerbates this effect further. We recommend that Ofgem increase the adjustment they make for inspection volume increases to take this into account.

We note that Ofgem has not taken average volumes of exceptional events into account in setting allowances. This should be corrected in future models.

4.11.2 Indirect costs

We are pleased that Ofgem has recognised that indirect cost allowances must be increased to reflect the increasing level of direct activities that they support. As such, comparative efficiency must be used in conjunction with cost projections in determining allowances. We note that Ofgem has modelled this based on a 1:4 relationship between indirect and capex rather than 1:3; it is important that Ofgem correct this in future analysis. This adjustment must also take into account agreed network outputs, the relative customer service provided by DNOs and increased obligations on DNOs for DPCR5.

We note that Ofgem have indexed indirects using increases to total capex including connection costs. Given the revised status of connection costs for DPCR5 we suggest that capex excluding connections should be more correctly used for indexation.

It is very surprising that even those companies that Ofgem's models deem are efficient do not receive the level of expenditure that they have forecast. This casts doubt on the appropriateness of the approach to the rolling forward of allowances.

We also note that there is inconsistency between indirect baseline setting and Ofgem's financial modelling approach. For example, the indirect cost baselines exclude indirects associated with excluded services but the financial model assumes they are included and removes assumed excluded service revenues from allowances.

4.12 Workforce renewal

We agree that workforce renewal costs should be modelled separately. Different DNOs have invested very different levels of expenditure on apprentices to date as a result of different age profile issues; this difference is sufficiently material as to distort modelling approaches. Separate analysis of anticipated expenditure will also allow appropriate attention to be placed on the very real problem of imminent skills shortages as a result of increasing capex programmes and ageing work-forces.

We note that Ofgem have made a few over-simplistic errors in assessing required workforce renewal expenditure, for example:

- Ofgem assume that where they have reduced ENW's proposed NLRE expenditure in DPCR5 that a consequential reduction in workforce renewal will be required. Elsewhere in this document we have explained where these reductions to our NLRE forecasts are inappropriate, rendering much of this reduction to our workforce renewal costs equally inappropriate. Notwithstanding this, it is important to note that disallowing asset replacement expenditure in DPCR5 simply creates a bigger replacement challenge in DPCR6. Given the projected increases in capex for DPCR6 and lead times in training and recruitment we would still need to recruit and train new employees in DPCR6, albeit towards the end of DPCR5

- Ofgem disallow a proportion of ENW's proposed expenditure because it represents a significant increase in recruitment to replace leavers compared to DPCR4. In reality, the specific pressures associated with age profile significantly worsen in DPCR5 relative to DPCR4. To have commenced significant recruitment prior to an immediate need for these resources would be inefficient and not in customers' interests; it would in effect have resulted in a protracted period of "doubling up" of resources

4.13 Ongoing efficiency and RPEs

In our previous submissions to Ofgem, we have described our approach to calculating the impact of input prices on the cost base of the DNO and how this rate of inflation exceeded those contained with the Retail Price Index (RPI). The analysis was developed using information directly from contractors and reasonable assumptions based upon previous experience and future expectations. Our work identified above RPI cost increases for specialist labour, materials and contractor costs across the entire cost base. In the Initial Proposals, Ofgem have not made any adjustments for ongoing efficiency or RPEs for network investment expenditure, suggesting that RPEs and industry frontier shift will produce equal and opposite cost pressures. Ofgem cite the CEPA analysis scenario 1 assumption of 0.9% per annum and the WPD/First Economics frontier shift assumption. We suggest the CEPA analysis of RPEs is flawed for the following reasons:

- The CEPA assumption of improved general labour market flexibility is not consistent with the recognised issue of skills shortage in the electricity network industry. The high penetration of union members in the industry will also reduce the scope for wage settlement differentiation
- We are concerned with CEPA's assumption that the long term trend of wage growth for DNOs is below the level experienced by DNOs under normal conditions. Given that the DNOs labour force are likely to be reasonably sheltered from the effects of the recession due to the relative skill scarcity and increasing investment programmes, we cannot see how the long term wage expectations will fall from 4.25% (as discussed in the First Economics analysis) to 3.7
- The CEPA assumption of contractor labour price movements is based upon the general labour market movements. Specialist labour cost movements are linked to demand in a specific market (aligned with the expected level of infrastructure expenditure) rather than general labour market conditions.
- Specialist labour is typically contracted over a price control period rather than by a project. Assumptions that a DNO can adjust its specialist labour costs dependent upon labour market conditions are flawed
- CEPA analysis of materials costs movements is limited but does recognise that it is limited in an area of significant volatility throughout DPCR4

Ofgem are attempting to link global economic conditions directly to a specialist DNO basket of goods. Whilst there is likely to be a degree of linkage between the two, it is not significant enough to suggest that the company forecasts (which were based upon detailed discussions with contractors and their supply chain) are not credible.

The fact that the majority of DNOs are overspending their DPCR4 opex allowances illustrates the extent to which there is very little scope remaining to make further efficiencies. Ofgem must recognise that their exclusion of some related-party margins and their adjustment for income associated with sale of assets and excluded service revenues from their comparison of costs to allowances mean that many DNOs' performance is in fact even worse; indeed in our own case the underlying position is of overspending DPCR4 allowances. We do not believe Ofgem should apply further efficiency adjustments to modelled costs.

We note that Ofgem justify the use of 1% per annum frontier shift by noting that WPD have assumed such a level of reduction within their plans. Our understanding is that WPD's 1% "reduction" is in fact the mitigation of anticipated 1% per annum cost increases and it is therefore inappropriate to apply this as a reduction to modelled costs. It is also important to note that neither WPD licensee is within the upper quartile for network operating costs and only one licensee is within the indirect cost upper quartile (overall they rank 8th and 9th on a top down basis) and as such any cost reductions for WPD will be in essence catch-up to upper quartile and not frontier shift. This is a further example of Ofgem's erroneous pre-conception of relative DNO efficiency adversely affecting ENW's position. Our own submission assumes a 1.8% per annum efficiency improvement comprising a mixture of reductions in cost relative to DPCR4 spend levels and mitigation of significant cost pressures that we anticipate in DPCR5. Clearly, Ofgem's reductions to ENW's forecast seem particularly inappropriate when the significant level of cost savings that have already been factored into our forecasts is taken into account.

The approach adopted for determining allowances assumes that we will be able to achieve baseline costs for DPCR5 by the end 2008/09. This assumes that the entire gap to frontier has been achieved in the prior financial year. In reality, it takes time to implement cost reductions; Ofgem recognised this is their DPCR4 final proposals. We recommend that any frontier shift assumption is applied from 2010/11 onwards and that the fact that it takes time to implement changes be recognised by assuming DNOs take five years to catch up to frontier.

The assumption that RPEs and frontier shift will cancel each other out places additional efficiency requirements upon the DNOs which may result in companies being set inappropriate cost allowances for network investment activities. This issue was recognised in the recent OFCOM price control. The regulator recognised that RPI is unlikely to provide a relevant measure of the cost pressures faced by the regulated business because it was suppressed by low mortgage interest costs and the Government's VAT reduction initiative. These issues increase the requirement for a greater RPE allowance. Given that frontier shift in real terms equals the sum of input price inflation minus productivity improvement minus forecast RPI-measured inflation, Ofgem must recognise that an artificially low RPI measure (which is likely to continue into DPCR5 given the recent commentary on the Monetary Policy Committee's options for fiscal stimulation) needs to be compensated via an additional RPE uplift.

Ofgem's analysis of ongoing efficiencies assumes that there are economies of scale available to DNOs. Economies of scale are only available where excess capacity in the market is available and where additional volume dilutes the impact of fixed costs. Given the pressure on the utility infrastructure contractors to deliver numerous capital programmes for various sectors, this is a rather dangerous assumption as they are likely to be able to demand a premium above DPCR4 rates.

5 Chapter 5 – Shetland and Transmission Exit charges

5.1 Transmission Exit charges

We maintain that it is unnecessary and inappropriate for an incentive to be applied to the DNOs in respect of Transmission Exit Charges.

The reality is that the long lead times associated with new GSP schemes mean the choice of engineering solution is usually made in advance of the price control period when the investment is to be made. Thus, an incentive based on the estimated costs of actual schemes can only incentivise the efficient delivery of those schemes (which is within the control of NGET rather than the DNOs) and not the choice of engineering solution, which the DNOs can and already do influence.

We have discussions on a number of levels with NGET to ensure that "value for money" investments are made. These discussions revolve around both the engineering solution and commercial arrangements. For the one project in our GSP group that is planned for reinforcement in DPCR5 we have provided Ofgem with additional information in terms of GAV and exit charge values, plus a "needs statement". We would be happy to provide further details of the engineering solution in terms of asset details and asset volumes, so that a view of efficient investment can be taken.

Ofgem's proposal does not incentivise the delivery of efficient technical solutions at exit points; rather, it rewards or penalises the long term forecasting accuracy of DNOs. DNOs are in turn reliant on NGET accurately forecasting GAVs, which will inevitably change as schemes progress to completion. For some schemes in the later years of the price control no "variation to bilateral" agreements may yet exist, so forecasts will be rough estimates at best.

As stated in previous responses, exit charges are largely outside the control of DNOs, and the annual charges can be volatile especially when new or reinforcement assets become chargeable. This makes it difficult for DNOs to accurately forecast ahead, even when contact with NGET is frequent. Such volatility has the potential to create windfall gains and losses within the incentive, rather than achieving Ofgem's desired effect.

Furthermore, introducing DNO exposure to this risk could have the effect of increasing charges. For example, on 5th November 2008, NGET published an Open Letter to the Industry, entitled Offer Pricing Options, which inter alia gave the option of fixing charges very early in a GSP project, rather than going with indicative prices followed by a reconciliation process. The fixed charge option would obviously carry higher risk premium and in our view produce higher overall charges. However it would produce certainty, which the DNOs might value over cost efficiency in view of their exposure to accuracy of forecasts under the incentive scheme.

6 Chapter 6 – Managing cost and volume uncertainty

6.1 Proposed mechanisms for DPCR5

6.1.1 Volume drivers on low-cost connections involving shared assets

We agree that different approaches for high-volume-low-cost and low-volume-high-cost work on shared assets seems appropriate. It is obviously difficult to comment further until Ofgem have provided more detail in their Autumn update.

6.1.2 Load Related Expenditure reopener

We are pleased that Ofgem is considering addressing load related volume uncertainty and broadly agree that the proposed mechanisms are appropriate. In particular, a starting point of expenditure forecasts removes the potential for revenue adjustments being made on the basis of application of a mechanistic driver metric, and takes into account a DNO's ability to mitigate the impact of such changes within its network programme. The ability to re-open the settlement based on an ex-ante expectation as well as ex-post expenditure is also welcome.

There remain however many questions regarding the scope and definition of the proposed process, and we hope that Ofgem will consult further and specifically on this item. It is not explicit whether this reopener applies separately to general reinforcement and the shared element of high-cost-low-volume connections or if the reopener applies to the aggregate amount of the two forecasts. If the former, we are unclear how new connections expenditure removing the need for general reinforcement would be treated. This needs to be clarified as the two components are subject to significantly different levels of uncertainty and DNO control.

With regard to the review of outturn demand, this will need to be carefully conducted to ensure that only those aspects of demand that drive investment were reviewed. It is not clear for instance whether Ofgem will consider a disaggregated (by BSP for instance) demand forecast or an overall forecast as reported in the FBPQ and RRP. We would resist an overall forecast on the basis that reinforcement responds to individual load increases and where load decreases we would not spend money to remove assets. We would also question the reliance on LI indicators to determine the validity of requests and stress the importance of a wider dialogue on changes to macro factors that have given rise to the re-opener being triggered.

6.1.3 TMA

Future costs associated with Traffic Management Act and New Roads and Streetworks Act are a mixture of certain and uncertain costs. Given uncertainty as to basis on which permitting will be implemented in local authority areas, we agree that it is sensible to ask DNOs to re-state forecast costs against a consistent set of assumptions and to introduce a mechanism to increase revenues if circumstances change.

6.1.4 General uncertainty mechanisms

We recognise that a number of uncertainties will always exist when calculating price control mechanisms. We recommend that Ofgem introduce a substantial effects clause into the price control allowing DNOs to seek the re-opening of a price control should circumstances materially change. We believe that such a clause could work well in parallel with mechanisms for managing volume uncertainty in areas such as load related expenditure.

7 Chapter 7 – Bringing the package together

7.1 Bringing together the cost assessment and the IQI

The separate treatment of business support costs within the Initial Proposals risks the creation of a new, perverse boundary within DPCR5. DNOs invest in activities such as network policy and IT in order make performance improvements and overall savings. The changes required of DNOs to support a low carbon economy will see DNOs incurring additional network policy costs (as they consider and develop innovative ways to manage networks) and operational IT solutions as part of a move towards smart grids (which in turn leads to long-term increases to IT & telecom costs). It seems perverse that Ofgem are placing a strong incentive on DNOs to not spend in these activities. We believe that business support costs, particularly IT & Telecoms and network policy costs, should be included within the IQI mechanism. This recognises the trade-offs in company decision making between these activities and other activities within the IQI.

The inappropriateness of Ofgem's approach to assessing required baselines is clearly compounded in ENW's IQI position within the Initial Proposals. Our position as the DNO with the (apparently) worst performance and hence largest cuts to forecast and lowest efficiency incentive rate for DPCR5 clearly results from ENW being harder hit by flaws in Ofgem's approach than other DNOs; indeed several DNOs are materially benefitting from some of Ofgem's errors.

We firmly believe that our FBPQ represents the most appropriate, efficiently priced business plan for customers in the North West. We expect that once Ofgem adopts more appropriate approaches to setting cost baselines that ENW's proposals will be assessed to be at 100% of Ofgem's baseline.

7.2 Holistic assessment of our cost allowances

We are frustrated that Ofgem seems to have a pre-conceived view of outcome of price control – and is selectively choosing models that match their pre-conceived view.

Ofgem's view of several DNO characteristics sometimes seems contrary to their own analysis. For example:

- WPD suggested to be "low cost" despite combined modelling indicating that they are ranked 8th and 9th of 14.

- CE reported to be a "well run DNO group which is reflected in their performance in the operational cost benchmarking" despite both CE companies being modelled to have worse than average network operating cost efficiency.

In contrast, Ofgem's summary of ENW's performance fails to recognise some key areas of industry leadership, for example:

- No recognition of our innovative business model that drives down the direct cost of activities – resulting in ENW's costs forming upper quartile for network

operating costs against which other DNOs' costs are challenged – securing cost reductions across the industry

- No acknowledgement of our leadership in promoting competition in connections – allowing customer choice and facilitating competition.

- No recognition of our upper quartile quality of supply performance

- Ignores pioneering research and development activities that focus on innovative development of distribution networks

- Ignores our focus on securing reductions to areas of costs such as wayleaves and NGC exit charges reducing overall bills to customers during DPCR4 and DPCR5

- Fails to recognise our efforts in identifying excluded service revenue opportunities that reduce overall bills for customers.

8 Conclusion

We have demonstrated Ofgem's analysis to be flawed in a significant number of areas. Most materially:

- Significant cuts to ENW investment volumes proposed despite detailed and compelling justification of requirements

- Material cherry-picking throughout Ofgem's approach resulting in baselines that are unrepeatable in the "real world" eg

    - Pursuing separate approaches to allowance setting for opex, capex and indirect activities without recognising the effects that different operating structures and insourcing/ outsourcing decisions have on the DNO cost base

    - Unit cost analysis conducted in the absence of a common costing framework or set of activity definitions, and then applied at a highly disaggregated level with no normalisation for different costing bases

    - Unit costs assessment based on "lesser of" rule

    - Lack of recognition of boundary issues within bottom-up comparative modelling

- Inappropriate comparative modelling assumptions; reversing the most material of which demonstrates that ENW should receive an additional £55m allowance in this area

- Shortcomings in approach to setting allowances for non-modelled opex and indirect costs that fail to recognise increasing cost pressures and relative DNO efficiency

- No allowance made for a significant number of new obligations

- Inappropriately stringent frontier shift assumptions

- Inconsistencies in approach between different parts of Ofgem's proposals resulting in significant double jeopardy eg cable replacement, substation electricity, indirects associated with excluded services

The existence of so many significant flaws in approach makes Ofgem's Initial Proposals unacceptable to ENW. We look forward to working with Ofgem to improve their approach well in advance of the Final Proposals.