



# **RIIO-ED1: REVIEW OF THE DNOs' BUSINESS PLANS**

## **ANNEX 4: COST EFFICIENCY AND EXPENDITURE**

### **A REPORT FOR CENTRICA**

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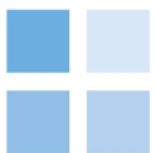
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Prepared by:

**CEPA LLP**

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**CEPA**

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## EXECUTIVE SUMMARY

### *Context*

The electricity distribution network operators (DNOs) have submitted their business plans to Ofgem for the next electricity distribution price control. The price control will set the outputs the DNOs need to deliver for their customers and the associated revenues they are allowed to collect for the eight-year period. It is the first price control review in the electricity distribution sector to be conducted under Ofgem's new RIIO model (Revenue = Incentives + Innovation + Outputs) and is, therefore, referred to as RIIO-ED1.

Fast-tracking is part of the general principle of 'proportionate treatment' that will be applied under RIIO-ED1, whereby if a DNO is considered to produce a high quality business plan, Ofgem propose to subject their business plans to a lower level of scrutiny and focus attention on the areas that deserve further analysis. In some cases, where a DNO produces a very high quality business plan, Ofgem has said it will consider whether it is appropriate to conclude that DNO's price control process early (this is known as "fast-tracking").

As a reward for developing a high quality and well-justified plan, Ofgem is proposing to provide fast-tracked DNOs with upfront additional revenues of 2.5 per cent of their allowed total expenditure in lieu of their Information Quality Incentive (IQI) settlement. Fast tracked DNOs will also receive an efficiency incentive rate of 70%.

### *Business plan consultation*

The intended next step for the RIIO-ED1 process is for Ofgem to complete an "initial sweep" of the DNOs business plans. Before completing this initial assessment, Ofgem has asked for stakeholder views on the DNOs' submissions.

Centrica, as a key integrated user of the electricity distribution network, has commissioned CEPA to provide our independent view and assessment of the DNOs' plans to help inform its response to Ofgem's consultation.

In this paper, we analyse the DNOs' cost efficiency analysis and the interactions with the ED1 expenditure incentives to draw out what we believe a well-justified DNO business plan needs to achieve, to provide customer value for money from fast-tracking.

### *Comparing fast-track and slow-track regimes*

The DNOs' final expenditure bids and Ofgem's final calibration of the IQI at DPCR5 meant that companies that met or moved towards the industry efficiency target (an upper quartile level benchmark) would receive a positive additional income allowance, and therefore total return on equity, *higher* than the headline allowed cost of equity.

This is illustrated by outturn return on regulated equity analysis completed by Ofgem for the RIIO-GD1 decision, which shows that for the first two years of DPCR5, the electricity DNOs have all outperformed their allowed cost of equity (6.7 per cent) with five DNOs (by service area) even achieving a (real) return on equity greater than 12 per cent for these first two years.

However, for RIIO-ED1, Ofgem is proposing to adopt a different IQI policy. While it has not made any final decision on the cost efficiency requirements it will set fast-tracked DNOs, it has stated that the RIIO-ED1 IQI matrix will be calibrated so that a DNO that submits an expenditure forecast which matches its baseline assessment of efficient expenditure (again based on upper quartile benchmarking of totex) will only be able to achieve a return equal to Ofgem's estimate of the cost of capital.

This means that, under the slow-track IQI process, DNOs that submit expenditure forecasts which are *higher* than Ofgem's baseline assessment, may earn returns *lower* than its assessment of the cost of capital, unless they are able to deliver outputs at lower costs than Ofgem's baseline, or earn rewards through other incentive schemes.

#### *Identifying criteria for a fast-track DNO*

Given the level of DNO outperformance under expenditure incentives so far in DPCR5, we can understand the rationale of the Ofgem policy of moving to an upper quartile cost efficiency baseline, as the 'break-even' point on the IQI matrix.

By applying upper quartile cost efficiency as a challenging benchmark for the DNOs, Ofgem can be more confident that it has mitigated the risk of business plan padding impacting on its own baseline assessment of costs.

However, while this is the proposed policy for the slow-track IQI, there is still a question if it should be the benchmark for any fast-tracked DNO. Our analysis of the interactions between the ED1 IQI and the incentives created by fast-tracking illustrates very clearly that there are risks and potentially unintended consequences from fast-tracking.

Firstly the package as set out in the ED1 Strategy Decision, for fast-tracked DNOs in lieu of the full IQI settlement, we believe offers less efficient DNOs the potential to receive outsized benefits compared to what they would be expected to receive under the slow-track IQI. If the company knows what in practice it is likely to require in expenditure to deliver its outputs, it may also have an incentive to 'pad' or 'inflate' its original fast-track business plan forecast.

Therefore, by comparing the fast-track and slow-track regimes, and the incentives this creates for the DNOs' fast-track submissions, we believe we have identified the necessary conditions where fast-tracking can add value for customers.

The scenario is a top-performing company that is expected to perform so well on the totex benchmarking that it may be eligible for an additional income true-up for even better treatment under the slow-track IQI once it is revealed. The DNO should historically also have a strong reputation for output delivery performance and have demonstrated that it has taken account of customer insight and willingness to pay for future investment and output improvements through its ED1 business plan.

This will allow the company to get on with its plans, with a guaranteed positive payoff that will be topped up later once the analysis has been completed for the other companies. This situation results in a reduced regulatory burden but implies no additional cost to customers.

It is within this context, and against these criteria, that we have reviewed the DNOs' plans, and specifically the findings of their relative cost efficiency analysis.

## *DNO business plan expenditure proposals*

In our view, the DNOs' proposals can collectively be seen as a bid by the companies to maintain the business-as-usual of DPCR5. The broad acceptance of key financial parameters in line with Ofgem's Strategy Decision and DPCR5 precedent, and proposed consumer bill reductions also give a promising impression of companies proposals.

However, we consider that this rosy backdrop may conceal some developments about which Ofgem should be wary. This is particularly the case given the outperformance return data reviewed in the previous subsection, and the rewards that are being offered for a fast-tracked company from proportionate assessment.

Our analysis has highlighted three key comments to be made on the detail and strategy of the DNOs' business plans:

### **1. Entrenched expectation of returns from incentives**

- At least five of the six company groups explicitly state that their cost of capital proposals are contingent on being fast-tracked. As discussed above, all DNOs were allowed positive expected returns from IQI additional income at DPCR5 but this benefit will now be removed for slow-tracked companies in ED1.
- The fast-track arrangements by contrast will maintain the existing levels of incentive rewards with an expected boost to the available return on regulated equity of approximately 100 basis points.<sup>1</sup> Our interpretation of the DNOs' business plan strategies is that they are seeking to justify their required return on equity based on maintaining the status quo (i.e. DPCR5) equity returns package, including from totex incentives, rather than evidence on their real stand-alone cost of capital.
- By claiming an additional income uplift (consistent with DPCR5) must be achievable through the IQI (as is the case with the fast-track process and the business plan proposals) or recognised in the baseline cost of equity, the companies are effectively arguing the expected, normal rate of return, from electricity distribution is higher than the headline 6.7 percent cost of equity quoted in their plans.
- We do not believe the DNOs approach is justified or consistent with the regulatory objectives of the IQI mechanism. Ofgem should stick to its building block approach to protect customers against these strategies. Overall we would expect (given the uncertainties and adjustments in the cost assessment process) that the value from efficiency incentives should on average be zero across the DNOs.

### **2. Benchmarking noise**

- There are better and worse performing DNOs from a cost efficiency perspective. However, the level of noise in companies' benchmarking evidence shows that nearly all

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<sup>1</sup> Analysis of the Price Control Financial Models submitted alongside the companies' business plans shows that the additional 2.5 percent on totex is forecast to provide an additional 94.5 to 116.5 bp on the RoRE. The whole-industry boost to RoRE was 106.5 bp.

the companies can make themselves appear to be best depending on the assumptions and benchmarking method that are adopted.

- The result is that there is uncertainty surrounding which companies are indeed the top performers. This question is important, as for the reasons outlined above, being able to identify upper quartile cost efficient DNOs is in our view crucial for customer value-for-money from fast-tracking.
- Ofgem will need to ensure that it has a robust benchmarking methodology in place to make sure that it is able to identify those that perform the best, before it feels confident enough to fast-track a DNO.

### **3. Artificial price reductions.**

- It is also important that Ofgem does not have its judgement distorted by companies' proposed bill reductions for the start of the price control.
- We recognise that this fall is at least partly due to the artificially high prices set for the end of the current price control period. 2014/15 prices will be artificially high due to profiling of revenues implemented by Ofgem in the DPCR5 Final Proposals.<sup>2</sup>
- Ofgem should correctly interpret this effect and avoid giving any leniency to companies based upon a windfall benefit to consumers that is none of their doing.

#### *Conclusions and recommendations*

Our recommendation therefore is that only a top-performing company (upper quartile cost efficiency or better) should be considered for the fast-track process.

This implies that only two, perhaps a maximum of three, DNOs (by distribution service area) should be considered for the process and its associated rewards.

Overall, given the importance that we place on individual DNOs demonstrating upper quartile level cost efficiency performance, while the DNOs have completed significant quantities of analysis in support of their submissions, it is difficult to conclude, without understanding the findings of the benchmarking (and the models that underpin this work) in some detail, which of the DNOs justifiably could be considered as a candidate for fast-track.

Given the risks for customers from fast-tracking and the unintended consequences that appear to be arising under the DPCR5 settlement, we do believe that Ofgem will need to be very confident that its benchmarking and wider cost assessment at the fast-track decision stage is robust to ensuring that it can identify a DNO that has - and will continue to - deliver at the industry upper quartile benchmark.

Otherwise we would encourage a fuller assessment through a slow-track process that allows for more information and understanding of the plans to develop.

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<sup>2</sup> Final Proposals revenue profiling has resulted in allowed revenue being 6.7 percent higher than without profiling for 2014/15.

# 1. INTRODUCTION

## 1.1. Context

The electricity distribution network operators (DNOs) have submitted their business plans to Ofgem for the next electricity distribution price control.

The price control will set the outputs the DNOs need to deliver for their customers and the associated revenues they are allowed to collect for the eight-year period from 1 April 2015 to 31 March 2023. It is the first price control review in the electricity distribution sector to be conducted under Ofgem's new RIIO model (Revenue = Incentives + Innovation + Outputs) and is, therefore, referred to as RIIO-ED1.

Before completing its initial assessment of the business plans, which will impact on the form of assessment that Ofgem expects to apply to individual DNOs over the course of price review, Ofgem has asked for stakeholder views on the plans.<sup>3</sup> It has asked stakeholders to feedback on a number of areas, including whether:

- the overall quality of the plans are comprehensive and well-justified, and provide clear expectations of what the DNOs will deliver in RIIO-ED1;
- the plans reflect what customers value, and accommodate the views of final consumers, suppliers and investors from stakeholder engagement; and
- the DNOs have identified and justified their expenditure requirements to deliver their output proposals over the eight year price control period, including the package of proposed finance measures.

Centrica, as a key integrated user of the electricity distribution network, has commissioned CEPA to provide our independent view and assessment of the DNOs' plans to help inform its response to Ofgem's consultation.

## 1.2. Remit

We have been asked to focus on a number of key price review areas, such as the DNOs' proposals on financial parameters, the interactions between incentives, DNO outputs and expenditure plans, and whether the DNOs plans overall appear sufficiently well-justified to qualify for the rewards of being "fast-tracked" through the RIIO-ED1 review process. Our analysis is presented across three papers covering the:

- the IQI and cost efficiency (the focus of this paper);
- financial issues (including the cost of capital); and
- outputs and incentives, including how the DNOs' plans have applied the findings from stakeholder engagement and customer willingness to pay analysis.

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<sup>3</sup> Ofgem (2013): 'RIIO-ED1: Electricity Distribution Networks Operators' (DNOs) business plans – publication, views and next steps'

While Ofgem has set the criteria that it will apply for its proportionate assessment of DNOs' plans, there is still ambiguity of the benchmark of a fast-tracked DNO.

In this paper, we focus on what we believe a well-justified plan needs to achieve to provide customer value for money from fast-tracking given the rewards Ofgem is offering to companies that can demonstrate relatively less scrutiny is required of their plans.

This initially involves a review of Ofgem's objectives and criteria for fast-tracking, the interactions with "proportionate business plan treatment", efficiency benchmarking and the expenditure headlines of the DNO business plans. We then consider the benefits from Ofgem deciding to fast-track DNOs and the interactions this has with more general policies on the IQI and its cost assessment process.

These findings then help to frame our review of the DNOs' benchmarking, and whether we believe they have demonstrated the cost efficiency of their delivery of outputs for customers over the forthcoming price control.

### **1.3. Structure of document**

The remainder of this paper is structured as follows:

- Section 2 reviews the RIIO-ED1 strategic context, including Ofgem's proportionate treatment and fast-tracking objectives and DNO historical performance;
- Section 3 analyses the risks and incentives created by the IQI, the comparative treatment of fast-tracked DNOs and the implications this has for reviewing elements of the DNOs' plans, such as on cost efficiency;
- Section 4 reviews the findings of the DNOs' relative cost efficiency analysis (benchmarking); and
- Section 5 provides conclusions and recommendations.



## 2. STRATEGIC CONTEXT

In this section we review the strategic context to RIIO-ED1, focusing on Ofgem’s objectives and criteria for fast-tracking and the headlines from the individual DNO business plans. This then informs our approach to assessing the DNOs’ business plans.

As part of the wider strategic context to RIIO-ED1, we also review the DNOs’ performance under regulatory incentives in DPCR5, how this has translated into outturn DNO returns and the implications for RIIO-ED1.

### 2.1. Proportionate treatment and fast-tracking

Fast-tracking is part of a more general principle of ‘proportionate treatment’ under RIIO, whereby if a DNO is considered to produce a high quality business plan, Ofgem propose to subject their business plans to a lower level of scrutiny and focus attention on the areas that deserve further analysis. In some cases, where a DNO produces a very high quality business plan, Ofgem has said it will consider whether it is appropriate to conclude that DNO’s price control process early (this is known as “fast-tracking”).

The intended process is for Ofgem to complete an “initial sweep” of the DNOs business plans to identify those companies that might be subject to less scrutiny during the RIIO-ED1 review process, and those that might need to be subject to more intensive scrutiny. It is this initial sweep which will inform Ofgem’s decision later this year on the next steps and potential fast-track of the DNOs’ ED1 business plans.

In the subsections below, we explain the process and criteria that Ofgem will apply for its proportionate assessment and how this will inform a fast-track decision. We then highlight the rewards that will be available to DNOs that can demonstrate they should be fast-tracked and how these compare with the DPCR5 settlement.

#### 2.1.1. Process and criteria for proportionate treatment

Ofgem’s initial sweep will focus on identifying whether DNO business plans demonstrate evidence of delivering primary outputs consistent with the views of stakeholders and, more generally, delivering long-term value for money for sustainable network services. Ofgem has proposed that this will be based on combined evidence from three sources:

- review of the quality of the business plans;
- performance during the previous regulatory control; and
- benchmarking of business plans.

While it does not anticipate undertaking a detailed assessment of the plans at this stage, Ofgem has still said that a *“balance will need to be reached between adopting a proportionate approach, which will allow us to form a view relatively quickly, and ensuring that sufficient scrutiny has been given to plans to enable us to categorise companies.”*<sup>4</sup>

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<sup>4</sup> Ofgem (2010): ‘Handbook for implementing the RIIO model’, p.62

Having completed the initial business plan sweep, this will then be used to identify three categories of DNO with the categorisation impacting on the form of assessment that will then be applied to each business plan (see Table 2.1 below).

*Table 2.1: Proportionate assessment*

	<b>Category A</b>	<b>Category B</b>	<b>Category C</b>
Intensity of scrutiny	Low	Moderate	High
Typical assessment method	Review/follow-up questions Short assessment of business plan	Focus on deficiencies in plan/past performance Analysis of condition of formerly unreliable assets	Full engineering and policy based analysis New data and follow up analysis
Timing of final proposals	Potentially earlier settlement	Final proposals	Final proposals

*Source: Ofgem and CEPA*

For a DNO to achieve a result that could place it in Category A, and, therefore, the capacity for being fast-tracked, the RIIO handbook and RIIO-ED1 strategy decision suggests that a DNO will need to demonstrate good performance across all the core assessment criteria that Ofgem propose to apply in its proportionate assessment.

This includes whether the company has:

- followed a robust process in developing its business plan (including engagement with stakeholders and demonstrating how this has influenced its plan);
- covered the required outputs in its plan, explained how it will deliver those outputs and the resource implications from its output forecasts;
- demonstrated that the costs of delivering proposed outputs are efficient when compared to other DNOs, wider best practice and historical performance;
- provided evidence that financial costs are efficient, and conform with the financial policies specified in the ED1 strategy decision; and
- clearly articulated the key uncertainties and risks that it faces, and how it will address and mitigate risks over the price control period.

By making it essential that a DNO performs well in each and every section of the core assessment criteria: *“This will help to avoid the risk that we might erroneously identify good performance based on a single data source.”*<sup>5</sup>

This also means that the benchmark for being fast-tracked has been set relatively high. For a DNO plan to qualify for fast-track, the company will not only need to demonstrate it is efficient, but also that it has listened to and engaged with its customers to identify output delivery priorities and justify its expenditure requirements.

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<sup>5</sup> Ibid, p.59

The fact the bar has been set so high is linked to the rewards available from being fast-tracked relative to the “slow-track” assessment process set out in the ED1 strategy decision.

### 2.1.2. Fast-track rewards

As a reward for developing a high quality and well-justified plan, Ofgem are proposing to provide fast-tracked DNOs with upfront additional revenues of 2.5 per cent of totex in lieu of their IQI settlement. Fast tracked DNOs will also receive an efficiency incentive rate of 70%.

While the higher incentive rate exposes a fast track company to greater upside and downside risk, the additional revenue is a clear financial incentive to be fast-tracked. Fast-tracked companies may also be motivated by reputational benefits from being identified as a leading industry performer.

We review the interactions between the rewards from fast-tracking and Ofgem’s wider IQI policy in detail in Section 3. At this stage, and as illustrated in Table 2.2 below, we simply note that the rewards from being fast-tracked are large, and potentially change the incentives on DNOs compared to the process Ofgem followed at DPCR5.

Table 2.2: Comparison of the treatment of totex under the fast and slow track processes

	Fast track process	Slow track process
Duration of scrutiny	July 2013 to end of February 2014	July 2013 to November 2014 (nine additional months)
Baseline totex	Only calculated as part of the slow-track process	Set in line with the upper quartile level from the full totex benchmarking
Allowed totex	DNO proposed level	Set as a weighted average of 25 percent of DNO’s proposed level and 75 percent of the baseline. i.e. a DNO proposing totex at 120 will be allowed 105
Additional income	2.5 percent on top of totex, with a “true-up” to compensate for any better settlement under the slow-track IQI process	Positive percentage of totex for DNOs below Ofgem’s baseline but negative for DNOs above it
Efficiency incentive	70 percent i.e. companies get to keep 70p of each pound underspend but must pay for 70p of each pound overspend	Intended range of 45-65 percent

Source: CEPA

With two approaches for completing the price review, the advantages and incentives from being fast-tracked are closely linked with the policies Ofgem expects to adopt for calibrating the slow-track IQI and its cost assessment benchmark.

While Ofgem has not made any final decision on the cost efficiency requirements it will set fast-tracked DNOs, it has stated that the RIIO-ED1 IQI matrix will be calibrated so that a DNO that submits an expenditure forecast which matches its baseline assessment of efficient expenditure (based on *upper quartile* benchmarking of totex) will only be able to achieve a return equal to Ofgem’s estimate of the cost of capital.

This means that, under the slow-track IQI process, DNOs that submit expenditure forecasts which are *higher* than Ofgem's baseline assessment, will earn returns *lower* than its assessment of the cost of capital, unless they are able to deliver outputs at lower costs than Ofgem's baseline, or earn rewards through other incentive schemes.

Importantly, this was not Ofgem's policy at DPCR5. Ofgem's DPCR5 totex IQI was calibrated so that all DNOs received a positive additional income allowance, and therefore total return on equity, *higher* than the headline allowed cost of equity, provided they delivered their allowed expenditure (75% of Ofgem's baseline and 25% of the DNO's view of expenditure). For example, a DNO with an IQI score of 100 (an upper quartile baseline cost efficiency assessment) would have been provided with a 2.5 per cent additional income allowance. However, only DNOs with an IQI score of 105 or lower would make a profit from the IQI if they delivered their full business plan forecast expenditure (100% DNO view of expenditure).

In contrast, under Ofgem's RIIO-ED1 IQI policy, although depending on the final IQI matrix, a DNO will only be able to achieve the same level of additional income (unless it is above an upper quartile cost efficiency industry) provided that it is fast-tracked. This will also mean that, for the majority of DNOs, the RIIO-ED1 settlement can only be similar to DPCR5, in terms of available ex ante returns, if the company is fast-tracked.

It is therefore not surprising that the companies have all indicated that they believe that their plans are sufficiently well-justified for them to qualify for the rewards which have been offered by Ofgem for fast-tracking. The company approach is supported by the (limited) data on DNO performance in DPCR5 which indicates that all the companies have so far managed to beat their allowed cost of equity under DPCR5 incentives package.

### **2.1.3. Historical DNO performance**

Figure 2.1 below illustrates the (real) regulated return on equity the electricity DNOs have achieved for the first two-years of DPCR5. This analysis was completed by Ofgem and its consultants to inform the RIIO-GD1 decision.<sup>6</sup>

While we should be cautious in interpreting too much from only two-years of equity returns data<sup>7</sup>, the analysis does at least suggest that the majority of DNOs will significantly outperform their overall DPCR5 package of output delivery incentives. So far in DPCR5, they also appear to be doing much better than their outturn performance in DPCR4.

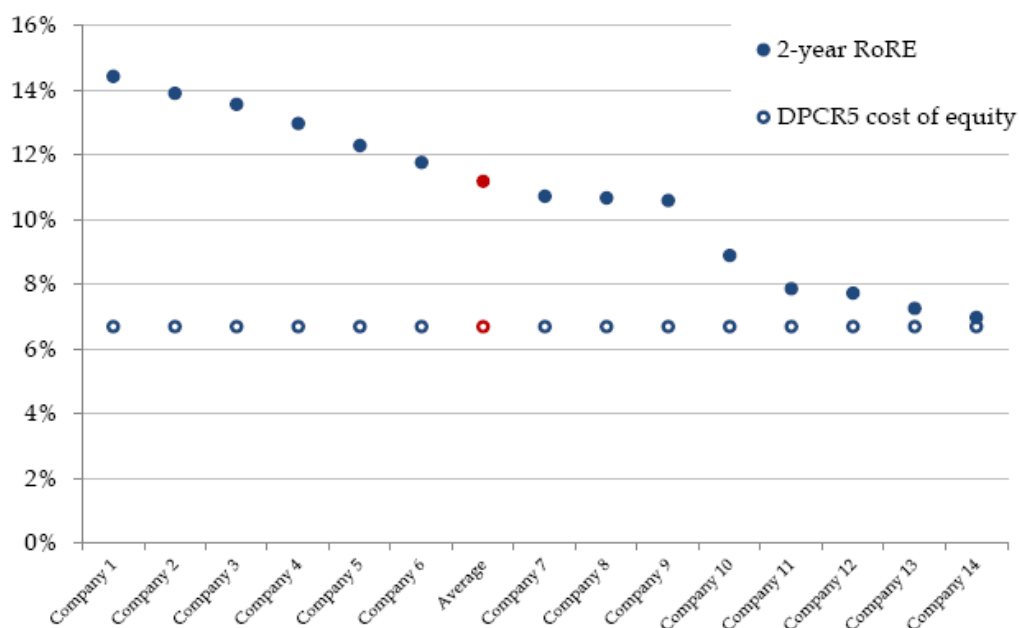
From a customer value for money perspective, it may be reasonable that the companies have outperformed their incentive targets, provided there are improvements in output delivery performance that customers are willing to pay or outputs are delivered at lower cost. But given the extent of outturn performance observed, the current price control IQI policy does appear generous, and may have contributed to a perception that the total allowed return for DPCR5 was higher than the headline allowed cost of capital.

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<sup>6</sup> Imercon / ECA (2012): 'RIIO reviews – Financeability Study'

<sup>7</sup> Ofgem's 2010/11 costs and outputs report notes that DNO cost of equity outperformance may be influenced by deferment of capex which could reverse in later years.. Whilst a DNO may appear to benefit financially in the short term from a network investment underspend, the DPCR5 secondary network deliverables mechanism penalises DNOs which do not deliver on their outputs.

Figure 2.1: 2-year RoRE for electricity distribution companies since DPCR5



Source: Ofgem, Imercon and ECA

#### 2.1.4. Implications

We believe the historical performance data and the proposed changes in IQI policy have important implications for the ED1 process and Ofgem’s initial sweep of the business plans. Particularly as the DNOs have closely linked their proposed financial package for RIIO-ED1 with the additional incentives from fast-tracking.

We understand the rationale of the Ofgem policy of moving to an upper quartile cost efficiency baseline, as the ‘break-even’ point on the IQI matrix.

By applying upper quartile cost efficiency as a challenging industry benchmark for the DNOs, Ofgem can be more confident that it has mitigated the risk of business plan padding impacting on its own baseline assessment of costs.

This policy, once combined with Ofgem’s proposals for calculating allowed totex and other elements of the ED1 incentives package, should also to help contribute to an expected value from incentives on average being closer to zero for DNOs. While an upper quartile cost benchmark is in theory a tougher regime than this, in the round, given the uncertainties and adjustments in the cost assessment process, we believe it means that customers will not be expected to fund incentives rewards for DNO performance that is no better than the established efficiency and quality of service benchmarks for the industry.

However, while this is the proposed policy for the slow-track IQI, there is still a question if it should be the benchmark for any fast-tracked DNO. Our analysis of the interactions between the ED1 IQI and the incentives from fast-tracking (see Section 3), illustrates very clearly that there are risks and potentially unintended consequences from fast-tracking if similar criteria for a fast-track company are not applied stringently.

Therefore, we believe we have identified the necessary conditions where fast-tracking can add value for customers from applying the criteria carefully (again see Section 3).

The scenario is a top-performing company that is expected to perform so well on the totex benchmarking that it may be eligible for an additional income “true-up” for even better treatment under the slow-track IQI, once it is revealed.

## 2.2. Strategic review of the business plans and DNO expenditure requirements

In this section we briefly review the investment priorities and expenditure plans of the DNOs’ and highlight the main strategic points that we have drawn from our initial review of the DNOs’ RIIO-ED1 business plans.

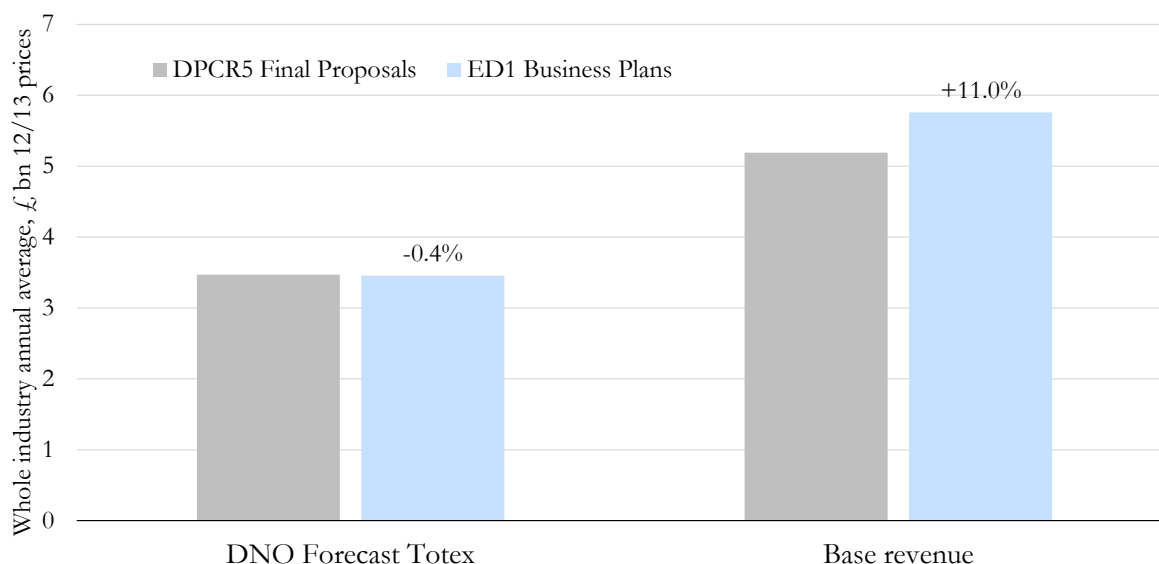
In our view, the DNOs’ proposals can collectively be seen as a bid by the companies to maintain the business-as-usual of DPCR5. The broad acceptance of key financial parameters in line with Ofgem’s Strategy Decision and DPCR5 precedent, and proposed consumer bill reductions also give an promising impression of companies proposals.

However, we consider that this rosy backdrop may conceal some developments about which Ofgem should be wary. This is particularly the case given the outperformance return data reviewed in the previous subsection, and the rewards that are being offered for a fast-tracked company from proportionate assessment.

### 2.2.1. Key elements of the business plans

Starting with broad cost and revenue trends, Figure 2.2 below summarises the expenditure plans and forecast base revenue of the GB electricity distribution sector as a whole. The analysis is CEPA’s but the underlying data is sourced from Ofgem’s DPCR5 Final Proposals models and the ED1 financial models submitted by DNOs with their business plans

Figure 2.2: Comparison of forecast allowed totex between DPCR5 Final Proposals and ED1 Business Plans<sup>8</sup>

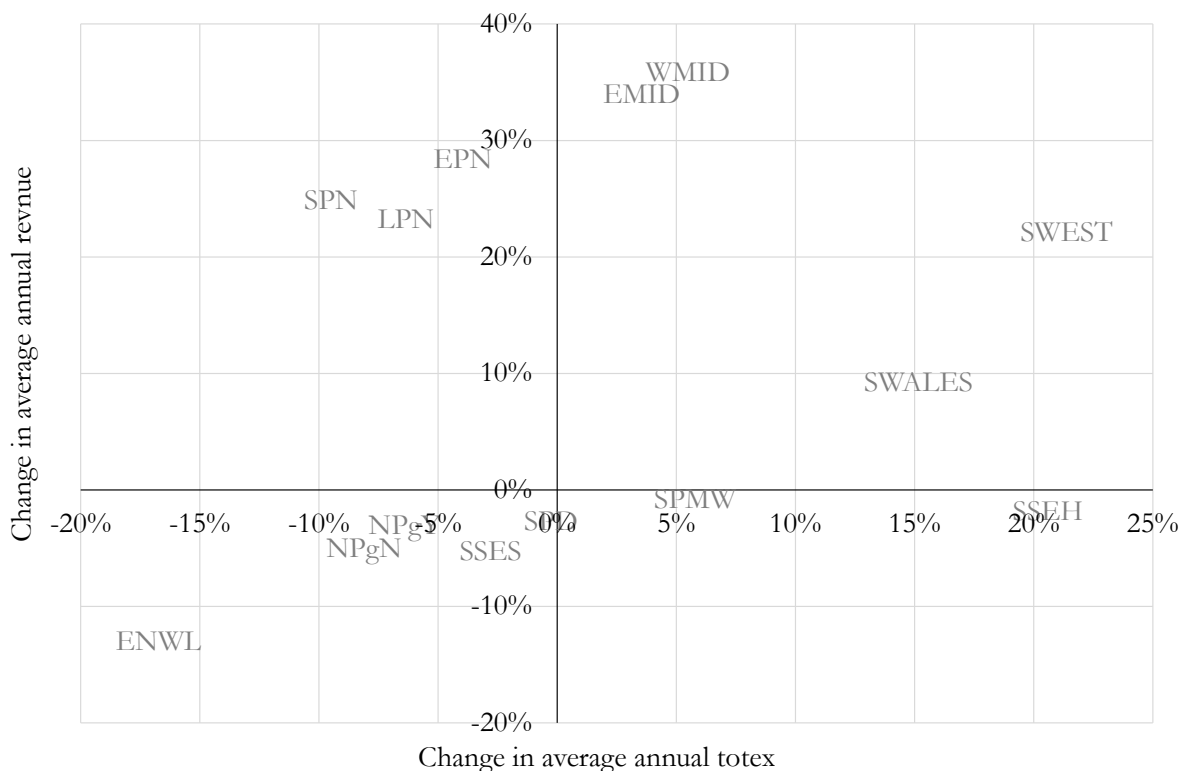


Source: CEPA analysis

<sup>8</sup> DPCR5 DNO Forecast Totex is calculated using the DPCR5 Final Proposals model. It is calculated as the sum of allowed fast and slow money having changed the IQI settings to set allowed totex as 100% of the DNO view. The values are inflated to 2012/13 prices using RPI.

Figure 2.2 above shows that while the average annual forecast totex is essentially flat between DPCR5 Final Proposals and the ED1 Business plans, forecast revenue is expected to rise.<sup>9</sup> Figure 2.3 below presents some of the detail lost in the industry totals.

Figure 2.3: Comparison of forecast allowed totex between DPCR5 Final Proposals and ED1 Business Plans<sup>10</sup>



Source: CEPA analysis

Figure 2.3 shows that while the overall level of totex is stable at the whole industry level, a number of DNOs are forecasting significant increases or decreases in totex, and six DNOs appear to be forecasting annual revenues 20 percent higher over ED1 compared to DPCR5. These increases in revenues are not always correlated with forecasting higher levels of totex.

Consistent with Ofgem’s business plan guidance, the DNOs seek to justify their expenditure requirements through engineering analysis, needs case (cost benefit analysis), stakeholder engagement and customer willingness to pay findings which support their output delivery forecasts. While some networks are proposing changes in totex, overall the companies (particularly in the context of the overall incentives package) appear to be maintaining the “business-as-usual” of DPCR5 through their plans.

Table 2.3 below sets out some of the key financial elements of the business plans alongside their counterparts from the DPCR5 Final Proposals.

<sup>9</sup> DPCR5 base revenue is calculated under the assumption that outturn totex will be equal to allowed totex (25% DNO view and 75% Ofgem baseline view). ED1 Business plan base revenue is calculated based on a 100% DNO view.

<sup>10</sup> DPCR5 DNO Forecast Totex is calculated using the DPCR5 Final Proposals model. It is calculated as the sum of allowed fast and slow money having changed the IQI settings to set allowed totex as 100% of the DNO view. The values are inflated to 2012/13 prices using RPI.

Table 2.3: Key price control financial elements for DPCR5 and RIIO-ED1

	DPCR5 <sup>11</sup>	RIIO-ED1 business plans
Finance		
Cost of equity	6.7 percent	Only ENW request a change (+10 bp)
Cost of debt	3.6 percent	All accept indexation proposals
Notional gearing	65 percent	No changes requested
Asset base		
Totex capitalisation <sup>12</sup>	85 percent	71 - 82 percent
Existing asset life	20 years	20 years
New asset life	20 years	All request transition to 45 years over the price control except SPEN who want to go straight to 45 years

Source: CEPA analysis of DNO business plans

We have reviewed the DNOs' proposed financial packages in detail, so our views on the companies' justification for their plans, including building blocks such as the cost of capital, are provided in a separate paper on financial issues.<sup>13</sup>

What we would highlight here, is that our initial assessment of the cost of capital in particular suggests that for the electricity distribution sector, the stand-alone cost of capital levels proposed by the companies are at the high end of what we would consider to be reasonable. We believe that there is potential for Ofgem to improve on these proposals through a full slow-track assessment. It also means (see discussion below) that we disagree with the DNOs' view that a baseline cost of equity of 6.7 percent is contingent on the companies being fast-tracked.

### 2.2.2. Implications

In terms of the wider review of the DNOs' plans and the interactions with Ofgem's RIIO-ED1 strategy decisions from earlier in the year, our analysis has highlighted three key comments to be made on the detail and strategy of the DNOs' business plans:

#### 1. Entrenched expectation of returns from incentives

- At least five of the six company groups explicitly state that their cost of capital proposals are contingent on being fast-tracked. As discussed above, all DNOs were allowed positive expected returns from IQI additional income at DPCR5 but this benefit will now be removed for slow-tracked companies in ED1.
- The fast-track arrangements by contrast will maintain the existing levels of incentive rewards with an expected boost to the available return on regulated equity of

<sup>11</sup> Ofgem (2009) "Electricity Distribution Price Control Review – Final Proposals"

<sup>12</sup> These values are not directly comparable as there have been some changes to what has been included in the IQI.

<sup>13</sup> CEPA (2013): 'RIIO-ED1: Review of the DNOs' business plans - cost of capital: a report for Centrica'



approximately 100 basis points.<sup>14</sup> Our interpretation of the DNOs' business plan strategies is that they are seeking to justify their required return on equity based on maintaining the status quo (i.e. DPCR5) equity returns package, including from totex incentives, rather than evidence on their real stand-alone cost of capital.

- By claiming an additional income uplift (consistent with DPCR5) must be achievable through the IQI (as is the case with the fast-track process and the business plan proposals) or recognised in the baseline cost of equity, the companies are effectively arguing the expected, normal rate of return, from electricity distribution is higher than then headline 6.7 percent cost of equity quoted in their plans.
- We do not believe the DNOs approach is justified nor consistent with the regulatory objectives of the IQI mechanism. Ofgem should stick to its building block approach to protect customers against these strategies. Overall we would expect (given the uncertainties and adjustments in the cost assessment process) that the value from efficiency incentives should on average be zero across the DNOs.

## **2. Benchmarking noise**

- There are better and worse performing DNOs from a cost efficiency perspective. However, the level of noise in companies' benchmarking evidence shows that nearly all the companies can make themselves appear to be best depending on the assumptions and benchmarking method that are adopted.
- The result is that there is uncertainty surrounding which companies are indeed the top performers. This question is important, as we show in Section 3, because being able to identify upper quartile cost efficient DNOs is in our view crucial for customer value-for-money from fast-tracking.
- Ofgem will need to ensure that it has a robust benchmarking methodology in place to make sure that it is able to identify those that perform the best before it feels confident enough to fast-track a DNO.

## **3. Artificial price reductions.**

- It is also important that Ofgem does not have its judgement distorted by companies' proposed bill reductions for the start of the price control.
- We recognise that this fall is at least partly due to the artificially high prices set for the end of the current price control period. 2014/15 prices will be artificially high due to profiling of revenues implemented by Ofgem in the DPCR5 Final Proposals.<sup>15</sup>
- Ofgem should correctly interpret this effect and avoid giving any leniency to companies based upon a windfall benefit to consumers that is none of their doing.

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<sup>14</sup> Analysis of the Price Control Financial Models submitted alongside the companies' business plans shows that the additional 2.5 percent on totex is forecast to provide an additional 94.5 to 116.5 bp on the RoRE. The whole-industry boost to RoRE was 106.5 bp.

<sup>15</sup> Revenue profiling has resulted in allowed revenue being 6.7 percent higher than without profiling for 2014/15.

### 2.3. Summary

In this section, we have reviewed the strategic context for RIIO-ED1, focusing on the process and available rewards from fast-tracking and the key strategic points we have drawn from the DNOs business plan proposals. We have highlighted the rewards from company fast-tracking, how they compare with historical outperformance observed so far in DPCR5 and how the links to the calibration of the IQI.

Our initial review of the DNOs' plans indicates that there is an entrenched expectation of returns from incentives (in particular, the IQI) contributing to unjustified proposals on what the total required return from electricity distribution needs to be to support ongoing investment and attract capital into the sector. The DNOs benchmarking and proposed price reductions should also be treated with some care by Ofgem in considering whether relatively less scrutiny needs to be applied to companies plans, particularly as different benchmarking methods would appear to allow all of the DNOs to claim, in some form or other, that they are the "most efficient" or an "efficient" distribution licensee.

This initial, top-down view, helps to frame our more detailed analysis of the individual elements of the DNOs business plans, and whether overall, we believe any of the companies have provided a sufficiently well-justified plan to receive the rewards associated with a fast-track process. This is the focus of the remaining sections of the report.

### **3. IQI AND THE COMPARATIVE TREATMENT OF FAST-TRACKED DNOs**

#### **3.1. Introduction**

In this section we review in more detail the benefits from Ofgem deciding to fast-track DNOs, and the interactions this has with the more general policies on IQI and the cost assessment process of the DNOs' business plans.

These findings help to frame our analysis of the individual elements of the DNOs business plans, and whether, in our view, any of the companies have provided a sufficiently well-justified plan to receive the rewards associated with fast-tracking.

At this stage, our conclusions can only be indicative, as our analysis relies on establishing counterfactuals and assumptions about DNO strategies, and the IQI matrix policy that Ofgem will adopt for slow-track companies. However, we believe that our analysis demonstrates potentially important consequences of fast-tracking different types of companies.

In the subsections which follow we:

- present our main findings;
- summarise Ofgem's proposed treatment of totex under both its fast-track and slow-track regimes; and
- set out the key assumptions and outputs from the modelling exercise we have used to examine the benefits of fast-tracking DNOs.

Our more detailed workings are provided in Annex A.

#### **3.2. Benefits from fast-tracking**

Ofgem has highlighted various advantages in its ED1 Strategy Decision from proportionate treatment of the DNO business plans and from fast-tracking. Fast-tracking is considered to afford high-performing networks a lighter regulatory burden, allowing the company to plan with greater certainty earlier in the process, refocus its resources on business as usual activities and gain reputational advantages.

From a customer perspective, Ofgem has said that proportionate treatment and fast-tracking should also provide incentives for DNOs to reveal information that would not otherwise be available (or only become available late in the price control review process).<sup>16</sup>

We understand the rationale behind Ofgem's views and recognise that the proposed changes to the IQI matrix represent a toughening of the regime compared to DPCR5. However, the package set out in the ED1 Strategy Decision, for fast-tracked DNOs in lieu of the full IQI settlement, we believe offers less efficient DNOs the potential to receive outsized benefits compared to what they would be expected to receive under the slow-track IQI.

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<sup>16</sup> See Ofgem (2013): 'Strategy decision for the RIIO-ED1 electricity price control – business plans and proportionate treatment', p. 8

In contrast, the most efficient DNOs should expect to receive comparable positive returns from totex-based incentives whether they are fast-tracked or not. This can be demonstrated through comparing potential outcomes for the DNOs under the fast-track and slow-track process.

### **3.2.1. Fast-track vs. slow-track**

The IQI was introduced as a regulatory tool to help with the fundamental problem that due to asymmetries of information, it is difficult for regulators to identify all padding in companies' business plans. While not perfect, it aspires to elicit truth-telling from companies by providing an "incentive compatible" framework.

As is the case with the IQI matrix Ofgem presented in its ED1 strategy consultation, under this framework, while a DNO has an incentive to deliver its business plan for less during the price control period, the value it generates from doing so would have been greater had they been in the IQI column for having bid the business plan level of totex.

The incentive properties, however, appear to be different under Ofgem's proposed fast-track treatment of DNO totex, as they are complicated by the interactions of the IQI's calibration under a slow-track process and the rewards available for fast-tracked DNOs.

In the case of fast-tracking, Ofgem is expected to accept a DNO's expenditure forecasts (perhaps with some small adjustments)<sup>17</sup> and the company then receives an additional income allowance of 2.5 percent of totex and will face an efficiency rate of 70 percent. While this means that efficiency gains are still incentivised for DNOs, and the rewards from being fast-tracked may help to incentivise the companies to submit more efficient business plans at the initial sweep stage,<sup>18</sup> assuming that the DNO believes it can get Ofgem to accept its business plan, for each level of outturn totex, the best outcome for the company will in this case occur the higher was its original business plan expenditure forecast.<sup>19</sup>

This means that as well as the additional income from being fast-tracked, if the company knows what in practice it is likely to require to deliver its outputs, it may have an incentive to 'pad' or 'inflate' its original fast-track business plan forecast.

This is not the case under the slow-track process, where, as described above, under the right conditions, the DNO faces an incentive compatible framework to deliver what it said it would deliver at the time of its final price control submission.

Under a fast-track process, therefore, a DNO potentially has an incentive to 'pad' its original business plan forecast provided it can still demonstrate good performance, and a justified plan, through other aspects of its submission to justify being fast-tracked. This is an outcome Ofgem (and ultimately customers) may be less vulnerable to under the standard IQI bidding process.

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<sup>17</sup> As was the case with SHETL and SPTL who were fast-tracked as part of the RIIO-T1 control.

<sup>18</sup> Not only because of the rewards from being fast-tracked, but also to avoid the relative trade-offs from Ofgem's current IQI policy whereby only an upper quartile DNO will be expected to break-even (i.e. earn its cost of capital) where it can deliver an IQI bid of 100 or less.

<sup>19</sup> As the additional income and efficiency rate has been fixed independently of the DNO's allowed revenues.

### 3.2.2. Worked example

To illustrate these impacts, we use a worked example. This involves establishing a counterfactual of the potential outcome for a DNO under a slow-track process and *comparing* this to the outcome under the fast-track process, in a modelling framework.

Of course our worked example does not cover all potential states of the world, or all the choices and potential incentive trade-offs that DNOs face from Ofgem's two-step fast and slow-track process. However, it does help illustrate some of the risks for customers if the less efficient companies are fast-tracked through the ED1 review process, even when the regime has been strengthened since DPCR5 in their favour.

In the subsections which follow, we summarise our modelling assumptions, present the key findings from the analysis and set out the main implications for the fast-track decision. The more detailed modelling that underpins the analysis is provided in Annex A.

#### *Assumptions*

The key assumptions used to calibrate a counterfactual slow-track IQI settlement are based upon the indicative IQI matrix provided by Ofgem during the ED1 Strategy Consultation.

The slow-track IQI can be calibrated based on three assumptions beyond those provided in Table 2.2 from the previous section:

- Additional income is zero for a DNO with an IQI score of 100.
- The incentive rate for a DNO with an IQI score of 100 is 65 percent.
- The incentive rate for a DNO with an IQI score of 90 is 70 percent.

Where  $Q$  is the DNO's ex-ante totex forecast, the assumptions above give the following IQI parameters:

- Efficiency incentive =  $1.15 - 0.005 Q$
- Additional income =  $3.75 + 0.0875 Q - 0.00125 Q^2$

This does not exactly match up with the indicative matrix issued by Ofgem during the ED1 strategy consultation<sup>20</sup> but can recreate all values in it to within one decimal place. We expect that the difference is due to rounding in the Ofgem calculation.

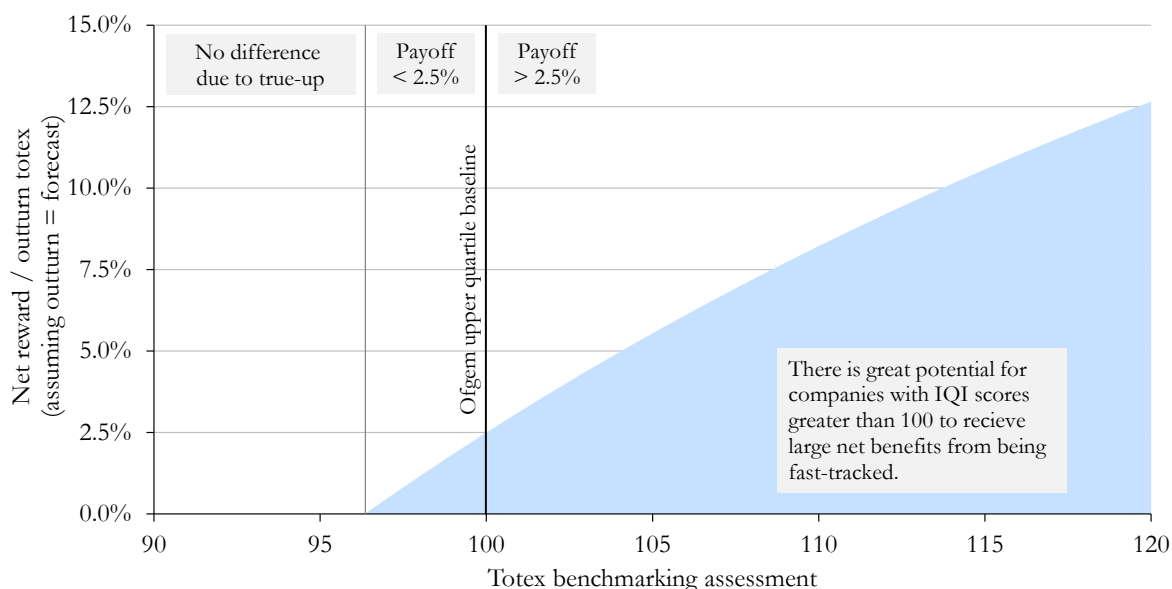
#### *Analysis*

Figure 3.1 below presents the net benefits of fast-tracking to a DNO using the assumptions and modelling approach which are set out above. The figure illustrates that for a DNO that would provide an accurate totex forecast under both the fast and slow-track processes, they will be at least as well off if fast-tracked as they would under the slow-track. It also shows that they will be much better off if fast-tracked, if they are one of the less efficient companies in the industry.

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<sup>20</sup> Ofgem (2012) "Strategy consultation for the RIIO-ED1 electricity distribution price control - Outputs, incentives and innovation Supplementary annex to RIIO - ED1 overview paper" available [here](#)

Figure 3.1: Net reward from being fast-tracked (relative to the slow-track process) based on totex benchmarking assessment, assuming outturn totex is equal to forecast totex, expressed as a percentage of totex incurred



Source: CEPA analysis

Figure 3.1 shows that while the most efficient companies receive the same reward whether fast-tracked or not, at a point below the upper quartile baseline, the benefits of being fast-tracked become positive and start to increase as benchmarked efficiency declines (IQI score rises).

Our modelling example then also shows that while a DNO at the upper quartile baseline would receive a 2.5 percent reward on its totex from being fast-tracked, this would increase to 8.2 percent for a company at 10 percent above the baseline and 12.7 percent of totex at 20 percent above the baseline.

Figure 3.2 below provides the breakdown of the source and absolute rewards/penalties involved in calculating these net benefit for a fast-tracked company.

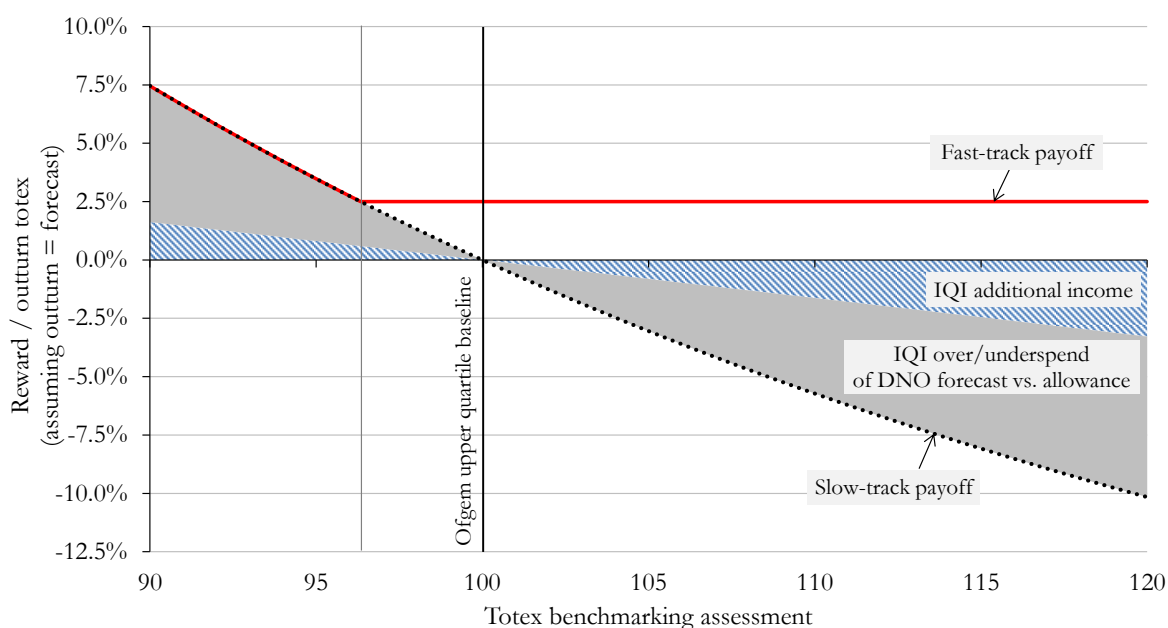
This illustrates that the rewards for the DNOs from fast-tracking (*relative* to the slow-track IQI process) are determined by the 2.5 percent of allowed totex additional income, but also the assumption that Ofgem adopts their full (or at least close to full) totex proposal under the fast-track process.

In contrast, under a slow track IQI process (see Table 2.2 from the previous section) allowed totex is set as a weighted average of 25 percent of DNO's proposed level and 75 percent of the baseline. i.e. a DNO proposing totex at 120 will be allowed 105.

This means that there are two sources of potential reward for a DNO being fast-tracked *compared* to the counterfactual outcome from bidding in the slow-track IQI:

- i. IQI additional income (the blue shaded area in Figure 3.2); and
- ii. the *avoided* IQI over/underspend of DNO forecast vs. allowance applied under the slow track process by Ofgem taking a weighted average of 25 percent of DNO's proposed level and 75 percent of the baseline *rather than* a DNO's full totex proposal under the fast-track process (the grey shaded area in Figure 3.2).

Figure 3.2: Rewards and penalties for DNOs under the fast and slow tracks, expressed as a percentage of totex incurred



Source: CEPA analysis

Figure 3.2 shows that DNOs that *would have* bid a level of expenditure below the baseline assessment (i.e. above upper quartile level cost efficiency) under the slow-track process, would be rewarded by the IQI regardless of whether they are fast-tracked. Therefore, depending on the DNO’s final IQI score which would have been revealed through the slow-track assessment, there is a point at which returns under both fast-track and slow-track processes become equal.

Moving to the left of this point (the thin grey line in Figure 3.2), a comparatively cost efficient DNO is no better off than if it had participated in the full ED1 slow-track assessment process. However, it still benefits from being fast-tracked, as it has the certainty (at the fast-track decision) of receiving the 2.5 percent additional income and the *possibility* of a true-up to ensure it is no worse off than had it participated in the slow-track IQI process.<sup>21</sup>

By contrast, a DNO that would have needed to bid a totex allowance *above* the baseline assessment, would do progressively worse under the counterfactual slow-track IQI process compared to the outcomes from fast-tracking. While the reward for being fast-tracked is constant, the potential penalty avoided by not being part of the slow track increases as the company’s ratio of forecast totex to baseline totex increases.

While from one perspective this may help to encourage the DNO to submit its most cost efficient business plan at the fast-track stage (to avoid the trade-off of an IQI policy where a score of a 100 only allows a company to earn its cost of capital) it also creates an incentive to pad, provided the DNO can demonstrate good performance elsewhere. For each level of outright totex, the best outcome for the company will occur the higher was its original business plan expenditure forecast (assuming that it is fast-tracked).

<sup>21</sup> Given Ofgem’s commitment to “ensure that fast-tracked DNOs are no worse off than if they had continued in the assessment process.” See ‘Strategy decision for the RIIO-ED1– business plans and proportionate treatment’, p. 9

All things being equal, it also means that customers in an inefficient DNO's area will pay more than if the company had bid through the slow-track process, as Ofgem's current IQI policy would mean the DNO is only be able to earn returns lower than Ofgem's assessment of the cost of capital, if they were able to deliver outputs at lower costs than Ofgem's assessment.

### *Customer bill impacts*

To illustrate the potential impact of these findings on customer bills, we have used the DNOs' price control financial models, submitted alongside their business plans, and customer numbers in the 2010/11 Electricity Distribution Annual Report<sup>22</sup>, to identify the average industry consumer costs of rewarding a DNO through the fast-track process. We compare this to the counterfactual outcome under the slow-track IQI.

These findings are summarised in Table 3.1 below, which shows how the net benefit to DNOs, and therefore bill impact to consumers, of being fast-tracked increases as benchmarked efficiency declines. While the reward for being fast-tracked is constant, the potential penalty avoided (if a company has to participate in the slow-track IQI bid process) increases as a company's ratio of forecast totex to baseline totex increases.

*Table 3.1: Estimated net annual consumer bill impact from fast-tracking by IQI outcome, 2012/13 prices*

		Ex-ante forecast totex						
		90	95	100	105	110	115	120
Ex-post	90	-	£0.07	+£3.26	+£7.55	+£11.84	+£16.13	+£20.43
Outturn	95	-£0.07	-	+£3.18	+£7.48	+£11.77	+£16.06	+£20.35
Totex	100	-£0.30	-£0.22	<b>+£2.96</b>	+£7.25	+£11.55	+£15.84	+£20.13
	105	-£0.67	-£0.59	+£2.59	<b>+£6.88</b>	+£11.18	+£15.47	+£19.76
	110	-£1.18	-£1.11	+£2.07	+£6.37	<b>+£10.66</b>	+£14.95	+£19.24
	115	-£1.85	-£1.78	+£1.41	+£5.70	+£9.99	<b>+£14.28</b>	+£18.58
	120	-£2.66	-£2.59	+£0.59	+£4.88	+£9.18	+£13.47	<b>+£17.76</b>

*Source: CEPA analysis*

Table 3.1. shows how fast-tracking can have a significant bill impact over the price control. For example, if a company requests totex 20 percent above what Ofgem's baseline would have been (under the slow-track process), we estimate that if they were fast-tracked, this would have an £17.76 impact on consumer bills each year over ED1. The outturn totex would be the same in both cases, and the company has been fully 'honest'.

Therefore, if Ofgem is concerned about consumer bills, it should not consider fast-tracking companies that are not expected to be top performers in the totex benchmarking.

In contrast, fast-tracking top DNO performers (relative to slow tracking these companies) can have little or no impact on consumer bills, especially if they are expected to be more efficient than the breakeven point shown in Figures 3.1 and 3.2 above, and would receive a true-up for greater rewards under the slow-track IQI process anyway.

<sup>22</sup> Ofgem (2012): 'Electricity Distribution Annual Report for 2010/11' available [here](#).



### *Implications for fast-track vs. slow-track*

We would again stress that our worked example and modelling do not cover all potential states of the world and the potential choices and incentive trade-offs that DNOs potentially face from a two-step fast and slow track process.

However, the analysis at least indicates that in some scenarios fast-tracking an inefficient DNO could entail a jump from an expected low or negative payoff under the slow-track IQI, to a positive one with the fast-track additional income of 2.5 percent.

Relative to a state of the world where an inefficient DNO (defined as below Ofgem's benchmark of upper quartile level cost efficiency) would need to take part in the slow track IQI bidding process, this could appear to lead to unjustifiable rewards for a company that is not a top performer in terms of cost efficiency.

### **3.3. Conclusions**

The real benefit for customers from fast-tracking is a reduced regulatory burden. This will create benefits over the long run as DNOs can focus instead on the operation of their businesses.

However, this incremental benefit is undeniably small. We therefore encourage Ofgem to continue to focus on achieving value for money for customers (through promoting cost efficiency) through the proportionate treatment and fast-track assessment.

The potential to be fast-tracked could be interpreted as creating a mid-point between a more generous DPCR5 regime and a potentially much tougher ED1 IQI matrix. However, the benefits that this intermediate step (i.e. fast-tracking) may give to some companies has the potential to be large.

We find that a comparison of totex-related incentives for DNOs under the fast-track and the slow-track processes, provides a set of recommendations for how Ofgem might approach an optimal fast-track assessment. We believe that these reflect the reality of companies' incentives, the informational limitations that Ofgem as an economic regulator face (even with regulatory incentive and cost assessment tools such as IQI and totex benchmarking) and the implications of the decision to fast-track or not.

Our recommendations are set out in the sections below.

#### *DNO eligibility*

- 1. To minimise impact on consumers, only fast-track top cost efficiency performers.** A DNO should only be fast-tracked if Ofgem is convinced that the DNO will be at or inside the totex benchmarking upper quartile. If it is not convinced, then the net impact on consumer bills from bypassing the IQI could be disproportionately large. The IQI is Ofgem's tool for incentivising totex, not fast-tracking.
- 2. To avoid hidden padding, only fast-track DNOs with a reputation for trustworthiness.** The flat incentive applied to fast-tracked totex may encourage padding in business plans. Ofgem should only seriously consider fast-track business plans from

companies with sufficient reputational capital that it can believe that they will forgo the temptation to add padding during fast-tracking.

#### *Business plans*

3. **To ensure that a lengthier review would not have found flaws, plans must be comprehensive and clear.** Given the incentives to inflate costs, in the absence of clear and comprehensive plans it would be hard to have real confidence in the DNOs' proposals. A fast track plan should be of such high quality that all points are clear and that there would be no benefit from prolonging the price review process.
4. **To avoid prejudicing the slow-track, allow companies space to back-track on their fast-track proposals.** The fast-track settlement may in some circumstances *reward* padding (we have explained why this is the case above) while the slow-track process, under the right conditions, incentivises truth-telling. Ofgem should ensure that companies are able to respond to the IQI's incentive properties without losing face.

Consistent with the above recommendations, we consider that we have identified a clear situation where fast-tracking can add customer value.

The scenario is a top-performing company that is expected to perform so well on the totex benchmarking that it may be eligible for a "true-up" for even better treatment under the slow-track IQI once it is revealed.

The DNO should historically also have a strong reputation for output delivery performance and have demonstrated that it has taken account of customer insight and willingness to pay for future investment and output improvements through its ED1 business plan.

This will allow the company to get on with its plans, with a guaranteed positive payoff that will be topped up (if required to ensure that the fast-tracked DNO is no worse off than it would have been through the slow-track process) once the full ED1 IQI settlement has been completed for the other companies. This situation results in a reduced regulatory burden, but implies no additional cost to customers.

## **4. COST EFFICIENCY AND EXPENDITURE PROPOSALS**

### **4.1. Introduction**

Ofgem expects to form its assessment of efficient costs largely based on each DNO's business plan, although other information, including international benchmarking evidence and information on historical performance, will also be used to inform the assessment.

In this section we review the evidence provided by the DNOs on cost efficiency, focusing our review on benchmarking. We seek to identify which of the DNOs can be considered to be the most efficient, and whether, in general, there is evidence to suggest that the DNOs have identified and justified their expenditure requirements.

We stress that the conclusions in this section should be treated with some caution, as CEPA has not had access to the DNOs benchmarking models or the underlying cost data. Neither have we made an assessment of whether certain benchmarking methods and model specifications are more or less relevant in forming an overall view of efficiency and cost assessment.

We have instead simply reviewed the business plans at their face value, seeking to identify the main points and implications of the analysis as presented in each plan. Given that customer benefits from a fast-track decision (see Section 3) would seem to us to be closely linked to a DNO demonstrating upper quartile level efficiency, we have focused on whether any of the DNOs plans (across different benchmarking methods) might clearly demonstrate that the company is achieving this benchmark.

In the subsections which follow we:

- we review the benchmarking tools Ofgem has said it will consider for RIIO-ED1 and summarise the key points we have drawn from the DNOs' analysis; and
- outline our key findings and overall conclusions and the implications for Ofgem's forthcoming fast-track decisions.

### **4.2. Benchmarking**

#### **4.2.1. Benchmarking tools**

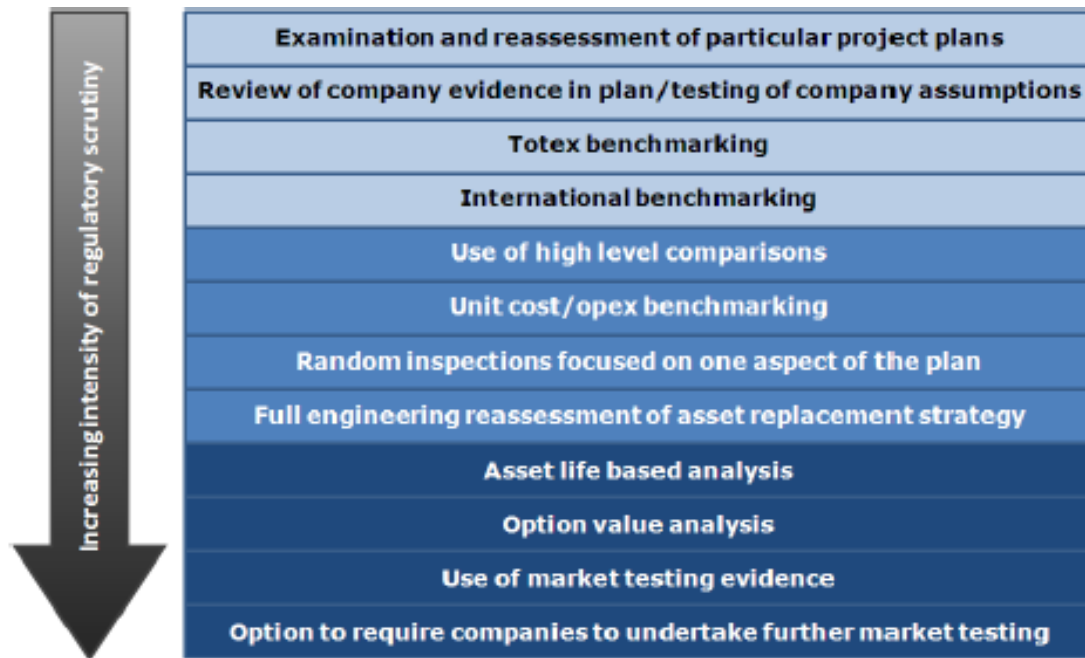
Ofgem has said it will consider the relative efficiency of the DNOs and the quality, robustness and objectivity of their ED1 cost justifications, using a 'toolkit' approach to cost assessment. This toolkit will include techniques such as:

- a review of the justification for expenditure and evidence on efficiency;
- total expenditure (totex) benchmarking;
- disaggregated benchmarking;
- asset volumes and unit cost analysis;
- historical trend analysis;
- expert review; and

- individual project review.

How these cost assessment tools might be employed for differing levels of scrutiny of a DNO business plan is illustrated in Figure 4.1 below.

Figure 4.1: RIIO cost assessment tool-kit



Source: Ofgem

With regards benchmarking, Ofgem intends to use two totex benchmarking methods, one method specifically developed by its consultants (Frontier Economics) for RIIO-ED1, and the other based on the totex approach used for RIIO-GD1. Ofgem consider that:

*“totex benchmarking provides an important assessment of the overall efficiency of total expenditure relative to a set of drivers, which is relatively immune to differences in cost allocation and takes account of opex-capex trade-offs.”<sup>23</sup>*

Ofgem also intend to use two more disaggregated benchmarking models. The first model will be based on unit cost benchmarking of individual assets and activities. The second model will combine regression and technical/qualitative analysis on defined groups of costs and is a similar approach as applied for RIIO-GD1. Commenting on this approach, Ofgem note that:

*“Disaggregated models allow a less constrained and more intuitive specification of cost functions of different cost activities.”<sup>24</sup>*

In comparing the two approaches, Ofgem suggest that totex benchmarking has two main advantages over the more disaggregated approaches:

- one, totex benchmarking in its view captures cross-activity trade-offs relatively well; and

<sup>23</sup> Ofgem (2013): ‘Strategy decisions for RIIO-ED1 – tools for cost assessment’ p. 7

<sup>24</sup> Ibid.

- two, it is not affected by cost categorisation issues.

However, it also recognises there are certain weaknesses<sup>25</sup> with a totex approach, and, therefore, concludes that using a variety of approaches is likely to be required:

*“there is no one correct model for assessing comparative efficiency but a number of plausible ones ... [and] we therefore intend to adopt a balanced approach using totex together with more disaggregated approaches.”*

Overall though, the ED1 strategy decision does still conclude that totex benchmarking provides: *“a good measure of the efficiency for the overall costs of a DNO, relative to a set of explanatory variable”*<sup>26</sup> and although weaknesses with a totex approach are identified, Ofgem does appear to place particular emphasis on this benchmarking method under the RIIO model. This would seem to be the case as totex benchmarking is one of the main cost assessment methods expected to inform a low intensity of business plan scrutiny, consistent with a decision to fast-track.

Ofgem has said it intends to use both historical as well as forecast data in its benchmarking models and has not yet determined the weight it will assign to different elements of the benchmarking analysis in reaching an overall cost assessment. It will also review the DNOs project cost benefit analysis as another element of the justification for the companies’ expenditure requirements.<sup>27</sup>

The DNOs have used Ofgem’s guidance on cost assessment and benchmarking to inform their business plans and their justification of expenditure requirements.

#### **4.2.2. Review of business plan analysis**

Table 4.1 below summarises the results of the comparative DNO benchmarking analysis as presented in Northern Powergrid’s (NPG) business plan. NPG’s analysis includes results from applying the totex model developed by Ofgem’s consultants (the first of the two totex models available to Ofgem that are referred to above) and the more disaggregated benchmarking methods, including a disaggregated total cost model, various “mid-level” models developed by Ofgem and a unit cost benchmarking method which has been developed by WPD for its business plan (see below). The ranking system is based on 1 being the best performing company and 6 being the worst, with the analysis presented at a DNO group level.

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<sup>25</sup> The main weakness highlighted by Ofgem is that *“it is only possible to use a small number of factors to explain costs, and therefore it may have a less rich specification than more disaggregated analysis.”* Ibid. p. 12

<sup>26</sup> Ibid. p12.

<sup>27</sup> Please note CEPA (working in a consortium with BDO) has been appointed by Ofgem to complete this review of business plan cost benefit analysis both for the fast-track and slow track decisions. We provide not further comments on this analysis as part of this report, instead focusing our review on comparative benchmarking.

Table 4.1: Benchmarking results at group level

DNO group	Totex		Disaggregated cost approaches		
	National wage	Regional wage	Unit cost	Indirect regressions	Indirects vs. allowances
NPG	1	1	2	1	1
SSEPD	4	3	1	2	2
ENW	3	4	3	3	3
WPD	2	2	4	6	5
UKPN	5	5	5	4	6
SP	6	6	6	5	4

Source: CEPA summary of NPG analysis

The first point to note from Table 4.1 is the results on relative DNO efficiency clearly change depending on the benchmarking approach adopted.

While NPG would appear to demonstrate that it performs the best (at least at a DNO group level) across a range of benchmarking methods, the DNOs relative efficiency scores clearly do change depending on whether national or regional wage assumptions are adopted in the totex model, or a more disaggregated cost approach (such as unit cost benchmarks) are used. Nevertheless NPG’s findings do suggest there are still better and worse industry performers.

On the basis of this analysis, NPG conclude that these benchmarking results demonstrate that it is “*unambiguously the most efficient British distribution network operator.*”<sup>28</sup>

SSE Power Distribution (SSEPD) also argue that through its business plan comparative analysis, that it has “*demonstrated that we are still most efficient distribution licensee.*” It focuses on two measures of efficiency – absolute efficiency and comparative efficiency and suggests that:

- *absolute efficiency* describes how it is improving against its historic performance and whether the DNO is becoming more efficient year to year; while
- *comparative efficiency* describes the efficiency of its business when compared to other businesses, including other GB DNOs.

Focusing on historical comparative efficiency, SSEPD’s plan highlights Ofgem’s DPCR4 decision where it concluded that SSEPD’s distribution business was “*the overall industry leader on efficiency of operating costs*”<sup>29</sup> and the findings of DPCR5 benchmarking (which used regression analysis and a selection of disaggregated benchmarking methods) which again tended to indicate that SSEPD was amongst the most efficient of the GB DNOs.

When using Ofgem’s consultant’s totex model, SSEPD suggest its network in the south of England (SEPD) is in the upper quartile of efficiency, ranked third most efficient DNO, and its network in north of Scotland (SHEPD) is ranked eleventh out of fourteen (Table 4.1 in contrast

<sup>28</sup> Northern Powergrid (2013): ‘RIIO-ED1 business plan – Annex 1.2: Benchmarking’, p. 3

<sup>29</sup> SSEPD (2013): ‘RIIO-ED1 business plan – Technical Appendix 09: Be Efficient, p. 12

presents the results of the benchmarking at a DNO group level (six companies) rather than by DNO licensee (of which there are fourteen)).<sup>30</sup>

However, SSEPD suggest that this assessment is not credible as the totex model does not use appropriate cost drivers and makes no adjustment for regional differences between networks. Overall the SSE business plan concludes on totex benchmarking that:

*“we believe that totex benchmarking is informative but not conclusive and should not be used as the main tool for comparative analysis. Consideration must be given to identify an appropriate number and mix of cost drivers and also costs must be adjusted to reflect obvious regional factors that impact on DNOs.”*<sup>31</sup>

SSEPD has also benchmarked its networks using the more disaggregated approaches. After having reviewed results from many different methods, SSEPD concludes that the disaggregated benchmarking indicates its SEPD network is the most efficient, and its SHEPD is the second most efficient network, across the GB DNOs.

This result seems to rely however on SSEPD adopting particular disaggregated benchmarking methods that make adjustments for regional assets, climate and population sparsity, as the disaggregated models which do not include such adjustments, rank SSEPD’s networks as third (SEPD) and eleventh (SHEPD) respectively.

SSEPD’s unit cost comparisons indicate that it is either the frontier company or the second most efficient DNO on most measures.

WPD’s business plan, as well as focusing on cost efficiency, also benchmarks the company on a comparative basis based on relative performance of different business units (e.g. in terms of output measures such as customer minutes lost). It concludes that *“WPD is an efficient business ... [based on its internal processes, business structure and staff contracting processes] complemented by the assessment and benchmarking by independent organisations.”*<sup>32</sup>

In reaching conclusions, WPD note that it has not relied on top-down benchmarking *“as we have had detailed analysis undertaken which leads us to conclude that it is unreliable.”*<sup>33</sup> Instead WPD has used bottom-up unit cost methods which compares costs using Regulatory Reporting Pack (RRP) data. Table 4.2 summarises the relative efficiency scores under its disaggregated unit cost model.

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<sup>30</sup> Using 2010/11 and 2011/12 data.

<sup>31</sup> Ibid, p.21

<sup>32</sup> WPD (2013): ‘RIIO-ED1 business plan – SA-08 Supplementary Annex – Business performance, efficiency and benchmarking’, p. 20

<sup>33</sup> Ibid, p. 13

Table 4.2: WPD findings on disaggregated unit cost benchmarking

DNO group	Historic data		RIIO-ED1 forecasts	
	Rank	Efficiency	Rank	Efficiency
NPG	3	93%	3	96%
SSEPD	1	90%	2	92%
ENW	4	100%	4	102%
WPD	2 & 5 *	92% & 103% *	1	88%
UKPN	7	110%	6	113%
SP	5	103%	5	106%

Source: CEPA summary of WPD analysis

\* WPD South West and South Wales are ranked 2<sup>nd</sup> which WPD West and East Midlands are ranked 5<sup>th</sup>

The first column of results shows DNO efficiency rankings using 2010/11 and 2011/12 data. WPD suggest that in undertaking this analysis, 2011/12 is not a representative year for assessing WPD efficiency in the WPD Midlands and WPD East Midlands DNOs because:

*“this was the year during which these DNOs were completely reorganised following the acquisition by WPD of Central Networks (CN) on 4 April 2011. During the remainder of 2011 the two Midlands DNOs were fully integrated into WPD’s organisational structure ... 2012/13 will therefore be the first representative year for comparing WPD’s four DNOs with all other DNOs.”*<sup>34</sup>

To account for this and:

*“ensure that the costs included this Business Plan are efficient [WPD] have used the available data for other companies for 2011/12 but have replaced the data for WPD West and WPD East Midlands with the unit cost forecasts for RIIO-ED1.”*<sup>35</sup>

The relative efficiency rankings calculated on this basis (which involves restated 2015/16 cost data in 2011/12 terms to ensure comparability) is the second column of results in Table 4.2. WPD suggest that the results show that the increased efficiency of the former CN companies has lowered the industry average unit costs, but despite this lowering, the WPD group is the most efficient in the sector. WPD further support this conclusion with an independent review of unit cost benchmarking provided by Parsons Brinckerhoff.

ENW apply a range of benchmarking methods in demonstrating the efficiency of their business plans including totex comparisons, “mid level” activity benchmarking and unit cost analysis. In presenting its findings ENW note that:

*“we aggregate any disaggregated analysis at average efficiency and then calculate an upper quartile value at an aggregated level and compare our aggregated forecast against this.”*<sup>36</sup>

Table 4.3 below summarises the results of ENW’s analysis. The ratios shows are the costs in the company’s plan divided by the costs predicted by ENW’s modelling – i.e. values below 100% show costs lower than those predicted by the efficiency models.

<sup>34</sup> Ibid, p. 15

<sup>35</sup> Ibid, p. 16

<sup>36</sup> ENW (2013): ‘RIIO-ED1 business plan – Annex 14: Efficiency assessment compared to other DNOs’, p. 3



Table 4.3: Findings of ENW benchmarking

		Totex analysis	Mid-level activity analysis	Unit cost comparisons
Average efficiency	Network investment	91%		86%
	Network operating costs		89%	83%
	Closely associated indirects		67%	
	Business support costs		80%	
Total against upper quartile * 1		96%	80%	96%

Source: ENW analysis

\* 1 – For mid level and unit cost based analysis upper quartile is based on sub-set of activities and may (ENW argues) therefore represent a target that is more stretching than true upper quartile

\* 2 – Unit cost comparisons presented for lower voltage asset replacement only

ENW conclude that in all cases:

*“our forecast [business plan and costs] represents a very competitive plan, with forecast costs within upper quartile targets for all modelling approaches ... we conclude that our plan represents a competitive plan when compared to other DNOs. Combined with wider efficiency testing and benchmarking we are confident that our plan represents an efficient proposal to deliver outputs that customers and stakeholders value.”*<sup>37</sup>

SP discuss cost efficiency in more general terms in its business plan. It has reviewed its costs relative to other networks by comparing unit costs and indirect costs. It concludes that: *“Our business plan reflects the most efficient costs to operate our networks in a safe and effective manner.”*<sup>38</sup>

UKPN applied the following benchmarking tools to assess the efficiency of its RIIO-ED1 expenditure forecasts:

- totex modelling;
- regression modelling (using panel data, over a period of four years (2008/09 to 2010/11) for a defined set of activities relating to network operating costs and indirect costs; and
- unit cost modelling.

It has also developed and commissioned project specific assessments, cost benefit analysis and external benchmarking reviews (e.g. assessment of IT and property costs) to justify the efficiency of its business and its expenditure requirements.

The UKPN business plan highlights the importance of regional cost adjustments in the benchmarking process suggesting that:

*“the costs of operating electricity distribution networks vary across Great Britain, including within our three network areas. Our SPN and especially our LPN network faces higher costs than our EPN network, principally due to a more challenging urban operating environment and higher labour costs in London and South East ... these regional differences are costs incurred by our networks that are not*

<sup>37</sup> Ibid, p. 3

<sup>38</sup> SP Energy Networks (2013): ‘RIIO-ED1 2015 – 2023 Business Plan’

*consistent with cost incurred by our own EPN network or other DNOs and therefore must be recognised when drawing comparisons within the industry.”<sup>39</sup>*

UKPN have adjusted the unit costs that underpin LPN and SPN’s 2015 to 2023 expenditure forecasts to reflect the regional cost differences. The regional cost adjustments are also accounted for in its top-down benchmarking.

Table 4.4 below summarises the efficiency scores from UKPN’s benchmarking analysis of each of its individual distribution networks. UKPN’s suggest that: *“this shows that over DPCR5 UKPN has steadily improved its cost efficiency.”<sup>40</sup>*

*Table 4.4: Efficiency of actual and forecast expenditure in DPCR5*

Cost category	Efficiency score based on 5 years DPCR5 actuals and forecasts (2010/11 and 2014/15) (less than 100% is better than assessed frontier)		
	EPN	LPN	SPN
TOTEX model	96%	97%	95%
Capex core (e.g. replacement)	104%	106%	98%
Capex non-core (e.g. environment)	Project specific benchmark or CBA	Project specific benchmark or CBA	Project specific benchmark or CBA
Civils	Bottom up analysis	Bottom up analysis	Bottom up analysis
Network operating costs (NOC)	113%	105%	94%
Closely associated indirects (CAI)	104%	108%	102%
Business support	120%	108%	97%
IT and Property	External Benchmark	External Benchmark	External Benchmark

*Source: UKPN*

The efficiency scores calculated by UKPN’s models for RIIO-ED1 are shown in Table 4.5.

*Table 4.5: Efficiency of forecast expenditure in RIIO-ED1*

Cost category	Efficiency score based on 8 years RIIO-ED1 forecasts (2015/16 and 2022/23) (less than 100% is better than assessed frontier)		
	EPN	LPN	SPN
TOTEX model	95%	88%	97%
Capex core (e.g. replacement)	110%	98%	95%
Capex non-core (e.g. environment)	Project specific benchmark or CBA	Project specific benchmark or CBA	Project specific benchmark or CBA
Civils	Bottom up analysis	Bottom up analysis	Bottom up analysis
Network operating costs (NOC)	108%	94%	87%
Closely associated indirects (CAI)	102%	107%	100%
Business support	113%	93%	92%
IT and Property	External Benchmark	External Benchmark	External Benchmark

*Source: UKPN*

<sup>39</sup> UKPN (2013): ‘Business plan (2015 to 2023) – Annex 13: Overall cost justification’, p. 4

<sup>40</sup> Ibid, p. 5

UKPN conclude that: “Overall, on a totex basis, all three networks benchmark as efficient and improve efficiency during RIIO-ED1. Within each individual category UKPN is able to demonstrate an overall improvement in cost efficiency in RIIO-ED1.”

#### **4.2.3. Benchmarking - key findings**

Based on review of the DNOs’ business plan benchmarking, we find that all the DNOs (perhaps with the exception of SP) have attempted justify the efficiency of their networks and business plans through benchmarking.

Each DNO (while focusing on some methods more than others) has also provided evidence drawing from the ‘tool-kit’ which Ofgem proposes to apply in its cost assessment. This is supported by independent benchmarking of their individual business costs, such as IT and business support services, and gets part of the way towards what we might envisage from a well justified ED1 business plan.

The worse performing DNO (in terms of business plan quality) does appear to be SP. While its plan sets out the objective of ensuring efficient costs from delivery, there is limited (at least published) evidence to justify (historically and looking forward) the efficiency of its distribution business relative to its peers.

This does not seem consistent with a well-justified plan, which might be considered for the fast-track process and the associated rewards.

However, the most striking *result* from the DNOs’ analysis is that different overall conclusions can be reached whether more weight is placed on historical or forward looking analysis, or whether aggregate models (such as totex methods) are preferred to more disaggregated approaches (such as unit cost comparisons developed by Ofgem and individual DNOs).

This seems to allow all of the DNOs (again with the exception of SP) to claim in some form that they are the “most efficient” or an “efficient” distribution licensee.

This is of course an entirely predictable outcome of a benchmarking process, that while applying quantitative techniques, involves some subjective interpretation of the evidence, and, as Ofgem recognised in its ED1 strategy decision, requires a number of plausible approaches to be applied rather one “correct” model for assessing comparative efficiency.

The weight that Ofgem places on particular techniques (e.g. totex methods) and historic vs. forward looking evidence, will therefore play a major role in influencing which network companies can justifiably say they are the most “efficient” DNO and, based on our benchmark of a fast-track ready DNO, should qualify for a fast-track process. The reliance Ofgem feels it can place on particular methods over others, therefore, seems to be critical to whether a fast-track decision can be made for individual DNOs.

#### **4.3. Overall conclusions**

In this section we have reviewed the evidence DNOs have submitted to justify their comparative cost efficiency, focusing on efficiency benchmarking.

Given the weight Ofgem appear to place on totex methods (including benchmarking based on historic and forward looking data) as part of a ‘light-touch’ level of regulatory scrutiny of a DNO business plan, it might appear only NPG and perhaps SSEPD (if regional and network specific adjustments are made to the totex modelling) could justifiably say they are the most “efficient” of the DNOs. However, even for these companies the conclusions may be influenced by how they have presented their benchmark results (e.g. at group level).

For example, for both companies, it is not entirely clear, whether the overall results and conclusions in all cases are based on historic data or forward looking benchmarking of proposed expenditure requirements.<sup>41</sup>

In this respect, UKPN’s plan would seem to provide the most clear comparison of how relative efficiency scores and performance change if historical or forecast information is used in the benchmarking process. While it may not be a top performer across all measures, its business plan is clear on what is driving its conclusions on efficiency.

As a final thought, we would also suggest that the benchmarking illustrates, across a range of different methods, that there remain major differences in the cost efficiency of individual DNOs. The fact that these differences continue to exist (and were evident at DPCR5) suggests there may be benefits for customers from Ofgem continuing to probe how the findings of the top-down benchmarking are reflected in each of the DNOs plans, in terms of overall expenditure requirements, but also the processes and methods each company are proposing to support continued efficiency and delivery improvements.

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<sup>41</sup> Ofgem said it would consider both at the ED1 strategy decision.

## **5. CONCLUSIONS AND RECOMMENDATIONS**

This report has highlighted the strategic points that we have drawn from our initial review of the DNOs' ED1 business plans, focusing on whether the DNOs plans overall, appear sufficiently well-justified to qualify for the rewards of being "fast-tracked" through the RIIO-ED1 review process, given the cost efficiency of their plans.

In this section we summarise our findings and provide overall recommendations on the approach and principles Ofgem should apply to its initial business plan sweep.

### **5.1. Historical performance**

We started our review by analysing the companies' historical performance, focusing on an overall return on regulated equity measure.

We found that DNOs have so far outperformed the cost of equity that was allowed by Ofgem under the current price control (DPCR5) with a package of outputs and incentive schemes very similar to that which Ofgem are now proposing for RIIO-ED1.

Analysis completed by Ofgem and its consultants for the RIIO-GD1 decision, for example, shows that for the first two years of DPCR5, the electricity DNOs have all outperformed their allowed cost of equity (6.7 per cent) with five DNOs (by service area) even achieving a (real) return on equity greater than 12 per cent for these first two years.

While part of this outperformance can be attributed to outperformance under key delivery incentives schemes, such as the Interruption Incentive Scheme, the level of outperformance appears so significant that, in our view, it can only be attributed to outcomes under the IQI introduced for DPCR5. As the regulatory incentive for efficiency and expenditure truth-telling, it provides the main opportunity for the DNOs to outperform their price control settlement.

### **5.2. Criteria for fast-tracking**

We believe DNOs' historical performance has important implications for the forthcoming price controls and initial business plan sweep, given a similar package of incentives and outputs is being proposed by Ofgem for RIIO-ED1.

In particular, given that the returns that have observed so far in DPCR5, we can see the rationale for Ofgem's stated policy for RIIO-ED1 of moving to an upper quartile cost efficiency baseline, as the 'break-even' point on the IQI matrix.

This policy, once combined with Ofgem's proposals for calculating allowed totex and other elements of the ED1 incentives package, should to help contribute to an expected value from incentives on average being closer to zero for DNOs. While an upper quartile cost benchmark is in theory a tougher regime than this, in the round, given the uncertainties and adjustments in the cost assessment process, we believe it means that customers will not be expected to fund incentives rewards for DNO performance that is no better than the established efficiency and quality of service benchmarks for the industry.

The IQI calibration at DPCR5 appears to have been overly generous in this regard.

However, as discussed in Section 2, as this is the proposed policy for the slow-track IQI, we also believe it should be the benchmark for any fast-tracked DNO. Our analysis of the interactions between the ED1 IQI and the incentives from fast-tracking, illustrates very clearly that there are risks and potentially unintended consequences from fast-tracking if the same efficiency criteria are not applied stringently in the fast-tracking decision.

Therefore, we believe we have identified the necessary conditions where fast-tracking can add value for customers. The scenario is a top-performing company that is expected to perform so well on the totex benchmarking that it may be eligible for an additional income true-up for even better treatment under the slow-track IQI once it is revealed.

The DNO should historically also have a strong reputation for output delivery performance and have demonstrated that they have taken account of customer insight and willingness to pay for future investment and output improvements through its ED1 business plan (we consider this question in a separate paper on incentives and output delivery).

### **5.3. Cost efficiency**

In our view, the DNOs' proposals can collectively be seen as a bid by the companies to maintain the business-as-usual of DPCR5. The broad acceptance of key financial parameters in line with Ofgem's Strategy Decision and DPCR5 precedent, and proposed consumer bill reductions also give a promising impression of companies' proposals.

However, we are concerned that this rosy backdrop may conceal some developments about which Ofgem should be wary. This is particularly the case given the outperformance return data reviewed in Section 2, and the rewards that are being offered for a fast-tracked company from proportionate assessment.

Comparing the fast-track and slow-track process regimes (and considering this within the context of the (limited) outturn returns data in DPCR5) suggests that the package in the ED1 Strategy Decision, offers less efficient DNOs the potential to receive outsized benefits compared to what they would expect to receive under the slow-track IQI. If the company knows what in practice it is likely to require in expenditure to deliver its outputs, it may also have an incentive to 'pad' or 'inflate' its original fast-track business plan forecast.

Overall, given the importance that we place on individual DNOs demonstrating upper quartile level cost efficiency performance, while the DNOs have completed significant quantities of analysis in support of their submissions, it is difficult to conclude, without understanding the findings of the benchmarking (and the models that underpin this work) in some detail, which of the DNOs justifiably could be considered as a candidate for fast-track.

Given the risks for customers from fast-tracking and the unintended consequences that appear to be arising under the DPCR5 settlement, we do believe that Ofgem will need to be very confident that its benchmarking and wider cost assessment at the fast-track decision stage is robust to ensuring that it can identify a DNO that has - and will continue to - deliver at the upper quartile benchmark.

Otherwise we would encourage a fuller assessment through a slow-track process that allows for more information and understanding of the plans to develop.

#### **5.4. Recommendations**

Our recommendation, therefore, is that only a top-performing company (upper quartile cost efficiency or better) should be considered for the fast-track process. This implies that only two, perhaps a maximum of three, DNOs (by service area) should be considered for the process and its associated financial rewards.

## ANNEX A: FAST-TRACK AND SLOW-TRACK MODELLING

### A1. Introduction

This annex presents the more detailed modelling results and explanation that accompanies our analysis in the main report. The modelling compares DNO incentives and rewards under fast-tracking with a counterfactual slow track IQI process.

### A2. Incentive properties of the IQI and fast-track process

The IQI was introduced as a tool to help with the fundamental problem that due to asymmetries of information, it is difficult for regulators to identify all padding in companies' business plans. While not perfect, it aspires to elicit truth-telling from companies by providing an "incentive compatible" framework. In theory, under the IQI, companies should receive the greatest payoff if they realise their forecast totex. These properties are illustrated in our worked example IQI matrix below in Table A1.

Table A.1: Slow-track IQI payoff matrix expressed as percentage return on outturn totex

		Ex-ante forecast totex						
		90	95	100	105	110	115	120
Ex-post Outturn	90	<b>7.50</b>	7.43	7.22	6.88	6.39	5.76	5.00
	95	3.42	<b>3.49</b>	3.42	3.22	2.89	2.43	1.84
Totex	100	-0.25	-0.06	<b>0.00</b>	-0.06	-0.25	-0.56	-1.00
	105	-3.57	-3.27	-3.10	<b>-3.04</b>	-3.10	-3.27	-3.57
	110	-6.59	-6.19	-5.91	-5.74	<b>-5.68</b>	-5.74	-5.91
	115	-9.35	-8.86	-8.48	-8.21	-8.04	<b>-7.99</b>	-8.04
	120	-11.88	-11.30	-10.83	-10.47	-10.21	-10.05	<b>-10.00</b>

Source: CEPA analysis

As can be seen by the deep green shading in the table, the highest payoff is received for each outcome level of totex if that level had been forecast at the outset. While there are practical issues and conditions that determine whether the IQI works in an optimal manner<sup>42</sup>, nonetheless, company submissions are at least rewarded for accuracy and efficiency.

This can be seen in the matrix because while a company always has an incentive to deliver the plan for less during the price control (move up rows from the diagonal) the value it would get from doing so would have been greater had they been in the column for having forecast that level of totex (set at the start of the price control).

In contrast to the incentive-compatible properties above, Table A2 shows the properties of the fast-track treatment of totex.

<sup>42</sup> Related to uncertainty, company risk appetite and their ability to influence the baseline.



Table A2: Fast-track payoff matrix expressed as percentage return on outturn totex

		Ex-ante forecast totex						
		90	95	100	105	110	115	120
Ex-post Outturn Totex	90	<b>7.50</b>	7.57	10.56	14.58	18.61	22.64	26.67
	95	3.42	<b>3.49</b>	6.32	10.13	13.95	17.76	21.58
	100	-0.25	-0.19	<b>2.50</b>	6.13	9.75	13.38	17.00
	105	-3.57	-3.51	-0.95	<b>2.50</b>	5.95	9.40	12.86
	110	-6.59	-6.53	-4.09	-0.80	<b>2.50</b>	5.80	9.09
	115	-9.35	-9.29	-6.96	-3.80	-0.65	<b>2.50</b>	5.65
	120	-11.88	-11.82	-9.58	-6.56	-3.54	-0.52	<b>2.50</b>

Source: CEPA analysis

Table A2 shows that under the fast-track arrangements, for each level of outturn totex the best outcome will occur the higher was the original forecast.

Efficiency gains are encouraged during the price control but there is an incentive to inflate the original forecast provided that company believes it can be fast-tracked through demonstrated good performance in other areas of its business plan.

In fact, companies receive almost as much percentage payoff for each unit of padding they can add to their allowance as from each unit they save during the price control. While the exact parameters of the slow-track IQI matrix are not known, this feature of the fast-track is clear. While the rewards from being fast-tracked may help to incentivise DNOs to submit more efficient plans at the initial sweep stage, as well as the additional income from being fast-tracked, if the company knows what in practice it is likely to require to deliver its outputs, it may have an incentive to ‘pad’ or ‘inflate’ its original fast-track forecast.

### A3. Net reward from fast-tracking and efficiency

Table A3 below compares Table A1 and Table A2 above to calculate the net benefit to a company of being fast-tracked.

Table A3: Benefits of being fast-tracked relative to being slow-tracked expressed as percentage return on outturn totex

		Ex-ante forecast totex						
		90	95	100	105	110	115	120
Ex-post Outturn Totex	90	-	+0.14	+3.33	+7.71	+12.22	+16.88	+21.67
	95	-	-	+2.89	+6.91	+11.05	+15.33	+19.74
	100	-	-0.13	<b>+2.50</b>	+6.19	+10.00	+13.94	+18.00
	105	-	-0.24	+2.14	<b>+5.54</b>	+9.05	+12.68	+16.43
	110	-	-0.34	+1.82	+4.94	<b>+8.18</b>	+11.53	+15.00
	115	-	-0.43	+1.52	+4.40	+7.39	<b>+10.49</b>	+13.70
	120	-	-0.52	+1.25	+3.91	+6.67	+9.53	<b>+12.50</b>

Source: CEPA analysis

Table A3 underlines the message in Figure 3.2 of the main report, that the net benefit of being fast-tracked increases as benchmarked efficiency declines.

While the reward for being fast-tracked is constant, the potential penalty avoided (in terms of negative additional income applied under the indicative ED1 Strategy Consultation IQI matrix

and Ofgem not adopting the company's expenditure forecasts as would be the case under the fast-track process) increases as the ratio of forecast totex to baseline totex increases.

Using the average consumer cost per percentile of the baseline of £1.18 per year, calculated using companies' Price Control Financial Models submitted alongside their ED1 business plans and Ofgem's 2010/11 Annual Report<sup>43</sup> customer numbers, we can estimate an approximate bill impact of each type of company being fast-tracked relative to if it had faced the slow-track IQI. The results are presented in Table A4 below.

Table A4: Estimated annual consumer bill impact from fast-tracking (relative to slow-tracking), 2012/13 prices

		Ex-ante forecast totex						
		90	95	100	105	110	115	120
Ex-post outturn totex	90	-	+£0.15	+£3.55	+£8.22	+£13.03	+£17.98	+£23.09
	95	-	-	+£3.26	+£7.77	+£12.43	+£17.24	+£22.20
	100	-	-£0.15	<b>+£2.96</b>	+£7.33	+£11.84	+£16.50	+£21.32
	105	-	-£0.30	+£2.66	<b>+£6.88</b>	+£11.25	+£15.76	+£20.43
	110	-	-£0.44	+£2.37	+£6.44	<b>+£10.66</b>	+£15.02	+£19.54
	115	-	-£0.59	+£2.07	+£5.99	+£10.07	<b>+£14.28</b>	+£18.65
	120	-	-£0.74	+£1.78	+£5.55	+£9.47	+£13.54	<b>+£17.76</b>

Source: CEPA analysis

Table A4 shows how fast-tracking can have a significant bill impact over the price control. For example, if a company requests totex 20 percent above what Ofgem's baseline would have been, we estimate that if they were fast-tracked, this would have an £17.76 impact on consumer bills each year over RIIO-ED1.

Table 3.1 included in the main report represents an extension of this analysis, including the assumption that companies provide accurate forecasts when slow-tracked. While this does not generate any differences when compared to Table A.4 for companies placed across the diagonal (with accurate forecasts), it does reduce the cost to consumers by assuming that companies will not miss out on the gains from forecasting accurately under the IQI.

#### A4. Conclusions

In the analysis above we have shown that, under a set of assumptions regarding the IQI and a limited view of company strategies, even when companies forecast accurately, fast-tracking a DNO has the potential to convey large benefits for the same outcome.

Therefore, if Ofgem is concerned about consumer bills, it should not consider fast-tracking companies that are not expected to be top performers in the slow-track totex benchmarking exercise. Fast-tracking top performers can have little or no impact on consumer bills especially if they are expected to be more efficient than the level at which they would receive greater than 2.5 percent under the IQI anyway.

<sup>43</sup> Ibid.