

Appendix 9.11: Assessment of indirect costs

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Introduction

1. This appendix sets out our analysis of the operational costs of the Six Large Energy Firms' retail businesses. Past research by the Institute for Public Policy and Research¹ and Ofgem² has highlighted significant dispersions in operational costs, which it is argued could be indicative of a lack of competition in a market where the product is largely homogenous. We assessed this variance between the Six Large Energy Firms and compared this against certain smaller energy suppliers. The results of our analysis are consistent with the findings of these earlier reports, ie that there are substantial and persistent differences in the level of indirect costs incurred by the Six Large Energy Firms.
2. Our view is that the persistence of large differences in the cost bases of the Six Large Energy Firms over the extended period of time we have reviewed is likely to be indicative of inefficiency rather than differences in the business models adopted by the Six Large Energy Firms.
3. We have not sought to compare either the network, or social and environmental costs, incurred by the Six Large Energy Firms. We note that the suppliers have limited control over network transmission and distribution costs. As a result, we did not consider that any comparisons of such costs

¹ IPPR (April 2012), *The True Cost of Energy*, pp26–28.

² Ofgem (October 2008), *Energy Supply Probe – Initial Findings Report*, pp95–96.

would be informative. Social and environmental obligation costs³ are difficult to benchmark in practice, as multiple schemes are in operation that span multiple years and deliver their goals through a variety of means. Therefore, we have concluded that it was likely that any comparisons made would be unreliable.

4. In our provisional findings, we also set out the results of our benchmarking analysis of the historical costs incurred by the Six Large Energy Firms in purchasing energy for their retail businesses. We carefully considered the responses that we received to this analysis (as set out in Annex B) and have concluded that it would be misleading to seek to identify an 'efficient' level of wholesale energy costs on an ex post basis. Therefore, we have not sought to benchmark wholesale energy costs. We recognise that energy suppliers select a forward purchasing strategy which may result in them incurring costs which turn out to be either above or below the market price at the time of delivery. This can create windfall gains or losses for those firms. However, in well-functioning retail energy markets, we would expect prices to customers be set on the basis of the opportunity cost of supply rather than the historical incurred cost. We have taken this into account when assessing which tariffs provide an appropriate benchmark against which to measure the Six Large Energy Firms' tariffs⁴ and the overall level of detriment.⁵ (See Section 10 for our assessment of overall detriment.)

Our approach

5. In order to compare levels of operational costs, we examined the relevant firms' indirect cost per customer account for their respective total supply businesses, ie domestic, SME and I&C supply combined, as well as for their domestic and SME retail segments (individually). We also estimated indirect costs per customer account by fuel type. In order to estimate the 'efficient' level of indirect costs over the period, we took into account both the range of indirect costs observed among the Six Large Energy Firms, as well as those of the Mid-tier Suppliers. Our primary benchmark assumes that an efficient supplier should be able to match the cost base of the lower quartile across the Six Large Energy Firms. However, we consider this to be a conservative assumption (see paragraph 27). Our detailed analysis of indirect costs is set

³ The social and environmental costs the suppliers incur in response to discharging government-led initiatives are expected to be recovered through consumer bills. Competition between suppliers to deliver these obligations cost-effectively – and therefore reducing the impact on bills – was one of the original rationales for the suppliers and not government delivering these schemes.

⁴ See Appendix 3.3: Domestic bills analysis.

⁵ See Section 3 of the [provisional decision on remedies](#).

out in Annex A to this appendix. This now includes the financial results for 2014, received after the publication of our provisional findings.

Indirect costs

6. We asked for a breakdown of indirect costs by standardised cost categories: bad debt costs, metering costs, sales and marketing costs, customer service costs and central service costs. We note that comparing costs across these categories might not be fully reliable where:
 - (a) there are differences in definitions and allocations across different indirect cost categories across the Six Large Energy Firms; and
 - (b) higher costs in one cost category may yield efficiency benefits in another category.
7. Therefore, our analysis focuses on the total indirect cost levels as opposed to making comparisons at the level of individual cost categories. This avoids making comparisons which are not 'like-for-like' and, thereby, the risk of incorrectly identifying inefficiencies by benchmarking against a total cost base that none of the Six Large Energy Firms was, in fact, able to achieve.
8. We have found that total indirect costs per customer account varied significantly between the Six Large Energy Firms. This gap is persistent over the period of review. The difference is largely driven by [redacted], although two suppliers, [redacted] made significant improvements over the period.

Table 1: Total supply business indirect cost ratios* over the relevant period for each of the Six Large Energy Firms

	£								
<i>Supplier</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>Average</i>
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Source: CMA analysis of P&L information submitted by the Six Large Energy Firms.

*We calculated indirect cost per customer account by dividing total indirect costs in real terms by total customer accounts across the total supply business. The averages for each supplier is a simple average of the six ratios for each year.

Note: For the purposes of restating indirect costs into real terms, we adopted FY07 as the base year.

9. We noted that these cost ratios were not necessarily directly comparable as the Six Large Energy Firms had different mixes of domestic, SME and I&C customer bases. Therefore, we estimated the cost ratios for the firms for their domestic and SME businesses separately, as shown in Table 2.

Table 2: Average* domestic and SME indirect costs per account for each of the Six Large Energy Firms (FY09 to FY14)†

£		
Supplier	Domestic	SME
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

Source: CMA analysis of P&L information submitted by the Six Large Energy Firms.

*Average indirect cost ratios have not been weighted.

†This analysis focuses on FY09 to FY14 as there was no split for SME for FY07 and FY08 for SSE.

Note: For the purposes of restating indirect costs into real terms, we adopted FY07 as the base year.

10. This analysis indicates that indirect costs were significantly lower for domestic customers, as compared with SMEs, although there remain large differences across the firms with [REDACTED] having the lowest domestic costs and [REDACTED] the highest.
11. We also calculated the cost ratios of certain Mid-tier Suppliers (First Utility, Ovo Energy and Co-operative Energy) to compare their levels of cost to the larger suppliers (see Annex A for further details). These firms predominantly served domestic customers.

Table 3: Total supply business indirect costs per customer account for the Mid-tier Suppliers

£							
Supplier	2009	2010	2011	2012	2013	2014	Average
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: CMA analysis of P&L information submitted by the Mid-tier Suppliers.

*We calculated the period average indirect cost per customer account by calculating a simple average of each year's indirect costs per account.

†First Utility had a large proportion of SME customers in 2009. After taking the decision to exit the non-domestic market, by 2014 First Utility were almost exclusively domestic supply.

12. This analysis shows that the Mid-tier Suppliers' indirect costs on a per-customer basis were broadly⁶ in line with those of the Six Large Energy Firms (for domestic customers), although [REDACTED] had a lower cost base. However, when comparing the costs of the Mid-tier Suppliers with those of the Six Large Energy Firms, we considered that there were two important factors to take into account. Firstly, as these firms were smaller and were acquiring significant proportions of customers each year, they will have had proportionally higher acquisition and on-boarding costs than the larger suppliers. Secondly, as the Mid-tier Suppliers were growing fast, their cost base may represent an element of spare capacity as they have been scaling

⁶ We note that the indirect costs of [REDACTED] were significantly higher early in the period but declined substantially. In 2013 and 2014, its indirect costs per customer account were similar to those of the other Mid-tier Suppliers.

up their operations in anticipation of growth.⁷ Both of these factors may distort the Mid-tier Suppliers' indirect costs upwards and thus these may be higher (in Table 1) than the true underlying cost level.

Discussion of results

Evidence of inefficiency

13. Having identified substantial differences in the level of indirect costs across the Six Large Energy Firms and the Mid-tier Suppliers, we have considered whether this evidence supported a hypothesis that some of the Six Large Energy Firms may have been inefficient.
14. As summarised in Annex B, the Six Large Energy Firms put forward the view that these differences did not necessarily provide evidence of inefficiency. In particular, they told us the following:
 - (a) [redacted] skewed the results with its indirect costs being significantly lower than those of the other suppliers. SSE told us that this was not due to efficiency but to differences in the timing of the suppliers' investment cycles.
 - (b) The analysis did not distinguish sufficiently or allow for differences between suppliers, for example in relation to their customer mix or tariff mix.
 - (c) There was insufficient evidence on inefficiency and large variances between suppliers was not always a sign of inefficiency.
 - (d) The CMA's analysis was too high level to provide a basis for robust conclusions. To prove inefficiency a far more detailed, econometric analysis would need to be carried out.
15. In relation to the submissions about the timing of investment cycles, we noted that our analysis covered an eight-year period from 2007 to 2014, which we considered to be sufficiently long for differences in the timing of investment cycles across the Six Large Energy Firms to even out. Moreover, we observed that while [redacted] had the lowest indirect costs and had not invested significantly in recent years,⁸ several of the Mid-tier Suppliers had made significant investments in scaling up their operations over the same period

⁷ Deciphering what would be their normal costs absent their current growth strategies is not feasible to any degree of accuracy. Likewise it is not possible to estimate any benefit from economies of scale that the larger suppliers may benefit from.

⁸ For example, [redacted].

and had only slightly higher indirect costs. Therefore, we found that the evidence did not support the view that the timing of investment cycles was having a significant impact on the level of indirect costs. As a result, our view is that it is reasonable to draw conclusions in relation to differences in the cost bases of the Six Large Energy Firms based on the evidence of this period as a whole.

16. As regards the impact of customer mix, we agreed that there were likely to be legitimate differences in the cost bases of the suppliers as the result of differences in their customer and/or tariff mixes. For example, in Appendix 9.8, we set out our analysis of the differences in the cost to serve direct debit customers as compared with standard credit and prepayment customers. We have found that prepayment customers are £63 more expensive to serve, and standard credit customers £100 more expensive to serve than direct debit customers. However, in the domestic sector, our analysis has shown that the supplier with the highest proportion of standard credit and prepayment customers, [redacted], has an indirect costs base that is just below our lower quartile benchmark and similar to the costs of [redacted], which has a relatively high proportion of direct debit customers,⁹ see Annex A, Table 3. This indicates that differences in the customer mix across the suppliers is not the main reason for the cost differences that we have observed and that, if we were to control for such mix effects, this would be likely to increase rather than reduce the observed differences.
17. With respect to the points raised in (c) and (d), we considered that large variances in indirect costs could be consistent with efficiency where firms were clearly differentiated in terms of the nature and/or quality of service provided.¹⁰ However, in this case, we noted that all the firms were selling the same, homogeneous products (gas and electricity), with few clear differences in terms of market positioning or service offering that would result in a substantially more or less cost-intensive business model. Therefore, our view is that large variances in indirect costs are likely to be the result of inefficiencies rather than different commercial strategies. In addition, we note that our analysis of inefficiencies is supported by evidence that we have collected from the Six Large Energy Firms themselves of significant inefficiencies that they have identified in their own operations. The scale of some of the efficiency improvements identified by some of the Six Large

⁹ [redacted] has a relatively high proportion of direct debt customers when compared with the other Six Large Energy Firms. We note that several of the Mid-tier Suppliers have higher proportions of direct debit customers.

¹⁰ For example, where firms in an industry are clearly offering different quality services (some offering a luxury version, others a 'no frills' version), we would expect there to be differences in the structure of the cost bases. A luxury provider might be expected to have higher overhead costs to support the higher quality service.

Energy Firms are above our expectation of what might constitute 'normal' levels.¹¹ For example:

(a) [REDACTED].

(b) E.ON told us that its indirect costs were higher than those of some independents, due to legacy IT systems.

(c) [REDACTED]. Centrica has announced a cost efficiency programme, under which it aims to reduce costs by £750 million per year. However, we note that these savings are expected to be realised from efficiencies across the whole of its business; not only its UK retail supply activities.¹²

18. Therefore, while we agree that the analysis that we have carried out is indicative, rather than being based on an econometric assessment of cost differentials, we note that our finding of substantial indirect cost inefficiencies is supported rather than contradicted by the evidence of the Six Large Energy Firms themselves.

Identification of an appropriate benchmark

19. In our provisional findings (Appendix 10.5), we used the lower quartile of the Six Large Energy Firms' costs per customer on an annual basis as a benchmark against which to measure the efficient level of indirect costs. As summarised in Annex B, several of the parties submitted that this approach was inappropriate. In particular, they submitted that the use of annual benchmarking was likely to overstate the level of inefficiency. In addition, the parties submitted that the analysis placed too much reliance on a very small set of Mid-tier Suppliers.

20. First, we agree with the parties that applying a benchmark based on annual lower quartile costs could result in a benchmark that none of the firms could have achieved over the period due to year-to-year variations in cost levels. As a result, we have altered the methodology to benchmark the suppliers against a 'whole period' (ie 2007 to 2014) lower quartile cost. However, as shown in Table 4, we also compared this lower quartile benchmark with that of the lowest cost of the Six Large Energy Firms over the relevant period ([REDACTED]). This analysis shows that at least one firm was able to operate with a significantly

¹¹ It is common for firms, in the ordinary process of competition, to identify potential efficiency improvements that would allow them to reduce their cost base and, in so doing, either lower prices and/or increase their profits. However, in a well-functioning market, we would expect such cost-savings to be incremental in nature, rather than the significant cost-savings that have been identified in this market. For example, if EDF Energy were to achieve the cost reductions that it has identified, these would be sufficient to move it from a loss-making position to a position where it would make a return in excess of its cost of capital (based on 2013 figures).

¹² [Centrica preliminary results for the year ended 31 December 2015](#).

lower cost base (around £100 million per year lower) than our lower quartile benchmark and over £200 million per year lower than some of its competitors ([REDACTED]). We considered that it might be reasonable to take the most efficient firm in the industry as the benchmark against which to evaluate the other operators – given the similarities in the products they sell and their market positioning, as well as the large differences between them – and that, on this basis, the level of ‘excess’ costs would be around £850 million per year across the five other of the Six Large Energy Firms.

21. However, given the potential differences in the mix of customers (eg as noted in paragraph 9, some firms have higher proportions of more expensive customers to serve), we have taken the period lower quartile as our main benchmark. We note that this benchmark is similar to the level of indirect costs per customer account achieved by [REDACTED]. We consider this to be conservative given that at least one firm in the industry has a significantly lower cost base and the firm with the highest proportion of expensive to serve customers ([REDACTED]) also has costs which are slightly below this level. In addition, as noted in paragraph 12, we consider that the per-customer indirect costs of the Mid-tier Suppliers may decline as they reach scale and their rate of growth slows.
22. As regards the reliance that we propose to place on the Mid-tier Suppliers (as comparators), we disagree that we are placing ‘too much’ emphasis on them when carrying out our benchmarking analysis. Our benchmarking calculations only use the figures of the Six Large Energy Firms, with the cost ratios of the Mid-tier Suppliers providing a sense-check rather than forming an integral part of the overall analysis.

Scope of the analysis

23. Finally, we have considered which activities should be included within the scope of our cost benchmarking analysis. The parties put forward the view that, particularly for SME activities, suppliers’ indirect costs varied from year to year and that the extent of these variations meant that robust conclusions could not be drawn from the data. Having reviewed the SME cost data (see Table 2) and information on the size of each of the Six Large Energy Firms’ SME activities, we agreed with the parties. We concluded that comparisons in this operating segment were likely to be unreliable. Factors that make it difficult to compare the suppliers in this regard include the following:
 - (a) The Six Large Energy Firms all have a significant market presence in the domestic sector. This is not true in the SME sector with some suppliers

having a large presence, like Centrica, some having a small presence, like Scottish Power and EDF Energy in the gas market.¹³

- (b) Customers in the SME market are far more diverse in terms of size and energy needs than those in the domestic markets making it much harder to draw conclusions from any differences between suppliers.
24. As a result, we have not sought to quantify any inefficiency in the SME market in contrast to the provisional findings, although on the basis of the evidence of inefficiencies in domestic energy retail supply, our view is that there are likely to be some inefficiencies in the SME markets as well. We have taken this qualitative observation into account when determining the detriment arising from the Microbusiness Weak Customer Response AEC.
25. A more general note on our methodology is that some of the Six Large Energy Firms submitted that metering costs were a direct cost item. We have treated these as indirect costs for the purposes of this review in line with Ofgem's approach in its consolidated segmental statements.

Conclusions

26. In Table 4 we set out the impact of benchmarking the suppliers' indirect costs to the lower quartile level incurred and to the level of the lowest cost of the Six Large Energy Firms (SSE). The difference represents the reduction in costs over the period required for the suppliers to have achieved our estimate of efficient costs.

¹³ See provisional findings, [Appendix 7.5: Descriptive statistics \(retail\)](#).

Table 4: Comparison of indirect costs 2007 to 2014

Indirect (operational) costs FY 2007–2014	£ million		
	Domestic electricity	Domestic gas	Total
Combined SLEF* out-turn indirect costs	14,644	13,445	
Restated using lower quartile	13,060	12,682	
Variance	1,584	763	2,347
Restated using [X]	10,755	10,535	
Variance	3,889	2,910	6,799
Lower quartile variance by supplier:			
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]
Total	1,584	763	2,347
[X] variance by supplier:			
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]
Total	3,889	2,910	6,799

Source: CMA analysis.
*Six Large Energy Firms.

27. Based on the above table we see that the costs above the lower quartile level amount to £2.3 billion (£290 million a year) across an eight-year period if we sum across all of the Six Large Energy Firms. However, if the results of [X] and [X] are excluded, this increases to £3.3 billion over the eight-year period, or approximately £420 million per year. In our provisional decision on remedies, we proposed an approach which was, to the extent that a firm had achieved a cost base that is below the benchmark, the difference should not be deducted from the total estimate of inefficiency in the industry. This was on the basis that our benchmark was reasonably conservative – being set at the lower quartile rather than the lowest cost firm – such that those firms [X] which ‘beat’ the benchmark could be considered to be reasonably efficient, but should not necessarily be considered ‘super-efficient’. Therefore, we set their ‘cost inefficiency’ to zero in carrying out our analysis. As set out in Annex B, several parties submitted that this approach was not reasonable and that the CMA should deduct the outperformance of these two firms from their economic profits when coming to a view on the total detriment. However, the evidence did not indicate that these firms [X] were particularly efficient when compared with the Mid-tier Suppliers. As shown in Table 3, Ovo Energy and First Utility had a similar level of costs as Centrica in 2014 in spite of operating at a significantly smaller scale and growing rapidly. Therefore, we continue to exclude their outperformance in our base case estimates. However, we recognise that there is uncertainty as to the overall efficient level of costs. As a result, in Section 10, where we set out our overall assessment of detriment,

including under our indirect approach, we have considered a sensitivity under which this outperformance in terms of efficiency is deducted from economic profits when coming to a view on total detriment.

28. The estimate of inefficiency increases to £6.8 billion if we take [redacted] indirect cost base as the benchmark. This is equivalent to around £850 million per year. The evidence suggests that there are significant inefficiencies within some of the larger energy suppliers. Other points of note:
- (a) [redacted], which has a higher proportion of expensive-to-serve customers by payment type, has costs below the lower quartile level; and
 - (b) when using lower quartile costs as the benchmark, two suppliers, [redacted], account for a large proportion of the total 'inefficiency'. Both of these suppliers have told us that they needed to make significant savings.
29. Our analysis indicates that some of the Six Large Energy Firms have been inefficient over the period of review, ie they could have operated with significantly lower indirect costs. In a well-functioning market we would not expect significant inefficiencies to persist over time. Rivalry would encourage suppliers to cut costs in order to survive. We therefore consider it reasonable to add cost inefficiency to out-turn profits in order to get a complete measure of detriment arising from the provisional Domestic Weak Customer Response AEC, the Prepayment AEC and the RMR AEC.

Annex A: Analysis of energy retailers' indirect costs

Introduction

1. This annex, and its accompanying supplements, sets out our assessment of the Six Large Energy Firms' indirect costs.
2. Past studies have suggested that indirect costs have not been falling for the Six Large Energy Firms, and that the gap between the best and worst performers in this regard was significant:
 - (a) In its 2008 Probe, Ofgem noted that operational costs were rising faster than the rate of inflation, and that the gap between the best and worst operational costs on a per-customer account basis was around 90%. Ofgem noted in its report at the time that some of the Six Large Energy Firms had programmes in the pipeline to reduce these costs going forward.¹⁴
 - (b) In its 2012 report, the Institute for Public Policy Research (IPPR) stated that in a competitive market it would not be unreasonable to expect operational cost savings of at least 2.5% a year. It found that the differential between the best and worst operational costs was over 100%, and concluded that competition did not appear to be driving down costs, or forcing their convergence.¹⁵
3. In a well-functioning market, we would expect competition to drive market participants to improve services and seek efficiencies. These efficiency gains should, at least in part, manifest themselves in reduced costs. Over time a significant and persistent gap between the highest and lowest cost suppliers, given that the product is homogenous, would be unlikely to be sustainable. In this section, we considered, at a high level, whether there was any evidence of the Six Large Energy Firms generating efficiency savings in indirect costs over the period of review, from FY07 to FY14.
4. This annex is structured under the following headings:
 - (a) Methodology: in paragraphs 5 to 8, we discuss how we measured indirect cost savings.
 - (b) Results: in paragraphs 9 to 32, we set out the results of our analysis.

¹⁴ Ofgem (October 2008), [Energy Supply Probe – Initial Findings Report](#), pp95–96.

¹⁵ IPPR (April 2012), [The True Cost of Energy](#), pp26–28.

Methodology

5. We focused our analysis on the indirect cost base, which is largely comprised of the operational costs of meeting customers' day-to-day needs. These costs can be controlled by energy suppliers. Our analysis was predominantly focused on the indirect cost base of the Six Large Energy Firms, however, for comparability purposes, we have also considered the indirect costs of the four Mid-tier Suppliers.
6. Given that all the relevant firms vary in size, an analysis of their total indirect costs in absolute terms would not provide us with an indication of their relative cost efficiency. To take into account the effect of a firm's size, we sought to adopt a suitable metric against which to calculate and compare indirect cost ratios between the Six Large Energy Firms. Most of the Six Large Energy Firms told us that the number of customer accounts was a key metric for looking at indirect costs, although when looking at individual cost categories the appropriate metric may change.
7. We considered that the number of customer accounts represented the most appropriate measure, given that it closely corresponded with the number of customer contracts held by a supplier, and was therefore a key driver (although not the only driver) of indirect costs. The number of customer accounts would also be closely aligned with the number of bills generated and therefore was likely to be a good indicator for the level of customer contact and any associated costs. For the purposes of this analysis, we therefore adopted indirect costs per customer account as our indirect cost ratio measure.¹⁶ We also converted indirect costs into real terms taking FY07 as the base year (see Supplement 1 to this annex for the details of these adjustments).
8. For the purposes of our analysis, we looked at indirect cost ratios at a total supply business level, as well as by retail segment split by fuel and by indirect cost component (ie the individual elements of a supplier's indirect cost base).

¹⁶ While we acknowledge that the number of customer accounts may not a perfect metric against which to measure all indirect costs, we considered that this measure benefited from being measured reasonably consistently across each of the Six Large Energy Firms, and therefore enables greater consistency and comparability across the relevant firms.

Results

Total supply business indirect cost ratios for the Six Large Energy Firms

9. In Table 1, we set out the indirect cost ratios at a total supply business level for the Six Large Energy Firms on a combined basis from FY07 to FY14.

Table 1: Total supply business indirect cost ratios over the relevant period for the Six Large Energy Firms combined

<i>Financial year</i>	<i>Total indirect cost ratios (£)* (average of the firms)</i>	<i>Year-on-year movement (%)</i>
FY07	81	N/A
FY08	83	+4
FY09	83	-1
FY10	81	-2
FY11	76	-7
FY12	75	-1
FY13	74	-2
FY14	76	+3

Source: CMA analysis of P&L information submitted by the Six Large Energy Firms.

*We calculated indirect cost per customer account by dividing total indirect costs in real-terms divided by total customer accounts across the total supply business. The averages for each year is a simple average of the six ratios for each firm.

Notes:

1. For the purposes of restating indirect costs into real terms, we adopted FY07 as the base year.
2. 'N/A' means 'not available'.
3. RWE's indirect costs and account figures include Telecom Plus figures.
4. Figures have been rounded.

10. Based on Table 1, indirect costs fell by around £5 per customer account (in real terms) between FY07 and FY14, a decline of around 2% each year on average. This comparison, however, masks the underlying trends in each individual firm's performance, and we consider these below.

11. Table 2 shows the indirect cost ratios at a total supply business level for each of the Six Large Energy Firms from FY07 to FY14 (see also Supplement 2 for further details for each of the Six Large Energy Firms).

Table 2: Total supply business indirect cost ratios* over the relevant period for each of the Six Large Energy Firms

	£								
	2007	2008	2009	2010	2011	2012	2013	2014	Average
[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]

Source: CMA analysis of P&L information submitted by the Six Large Energy Firms.

*We calculated indirect cost per customer account by dividing total indirect costs in real terms divided by total customer accounts across the total supply business. The averages for each supplier is a simple average of the six ratios for each year.

Note: For the purposes of restating indirect costs into real terms, we adopted FY07 as the base year.

12. Based on Table 2, we found that:

- (a) both [X] and [X] had each made improvements over the relevant period to their individual indirect cost base; in particular, we found that these two firms were the primary drivers for the cost reductions seen for the Six Large Energy Firms on a combined basis from 2007 to 2014;
- (b) the average gap between [X] (with the lowest indirect cost ratios) and [X] (with the highest) was around £[X] per customer account, or a percentage difference of [X]%; and
- (c) in considering the impact of higher indirect costs on [X] profitability – and based on (b) above – we calculated that, if [X] had generated indirect cost ratios in line with [X], this would have the effect in most cases of turning [X] EBIT losses into an EBIT profit for its total supply business.

13. We noted that an analysis of total indirect costs per customer account at a total supply business level would not make a distinction between customers in different retail segments, eg between a domestic customer account and an SME customer account. The mix of domestic and non-domestic customers will influence the results above. Below, we looked at indirect costs on a retail segmental basis, focusing on the two retail segments that formed part of our reference markets, namely domestic and SME supply.

Retail segmental indirect cost ratios for domestic and SME supply by fuel type

14. Table 3 shows the average segmental indirect cost ratios for domestic supply (split by fuel type) for each of the Six Large Energy Firms for the period FY09 to FY14. The detailed figures behind this table are set out in Supplement 3 to this annex.

Table 3: Average* domestic indirect costs per account for each of the Six Large Energy Firms (FY09 to FY14)†

	<i>Domestic electricity</i>	<i>Domestic gas</i>	<i>Domestic overall</i>	<i>Rank</i>
[X]	[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]	[X]

Source: CMA analysis of P&L information submitted by the Six Large Energy Firms.

*Average indirect cost ratios have not been weighted.

†This analysis focuses on FY09 to FY14 as there was no split for SME for FY07 and FY08 for SSE.

Note: For the purposes of restating indirect costs into real terms, we adopted FY07 as the base year.

15. Based on Table 3 and Supplement 3 to this annex, we found that, while there were peaks and troughs in their respective indirect cost ratios with some firms demonstrating no significant cost reductions, there appeared to be no consistent trend of increasing costs. We also found that:

- (a) both [redacted] and [redacted] demonstrated the strongest trends in cost reductions over the relevant period, as was the case for their respective total supply business indirect cost ratios; and
- (b) the ranking of the indirect cost ratios for each of the Six Large Energy Firms' domestic retail segments was broadly consistent with the ranking we found for their respective total supply businesses above, eg with [redacted] generating the lowest indirect cost ratio, and [redacted] generating the highest cost, 70% higher.

16. Table 4 shows the segmental average indirect cost ratios for SME supply (split by fuel type) for each of the Six Large Energy Firms for the period FY09 to FY14 (see also Supplement 3 to this annex for further details).

Table 4: Average SME indirect costs per customer account for each of the Six Large Energy Firms (FY09 to FY14)†

	<i>SME electricity</i>	<i>SME gas</i>	<i>SME overall</i>	<i>Rank</i>
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Source: CMA analysis of P&L information submitted by the Six Large Energy Firms.

†Average indirect cost ratios have not been weighted.

Note: This analysis focuses on FY09 to FY14 as there was no split for SME for FY07 and FY08 for SSE. For the purposes of restating indirect costs into real terms, we adopted FY07 as the base year.

17. Based on Table 4 above, in conjunction with Supplement 3 to this annex, we found that:
- (a) year-on-year movements in indirect cost ratios were more volatile for the SME retail markets than for the domestic retail markets, with proportionately larger differences between the Six Large Energy Firms;
 - (b) the rankings for SME indirect cost ratios were slightly different from the similar rankings we found for the domestic retail segment and total supply business levels for the Six Large Energy Firms; for SME indirect cost ratios, [redacted] generated the lowest ratio while [redacted] generated the highest; and
 - (c) only [redacted] indirect cost ratios showed significant reductions over the period.
18. We considered that the reason for the more varied picture for indirect cost ratios in the SME retail markets was likely to depend to some extent on the relative significance of the SME retail activities for each of the Six Large Energy Firms. For example, [redacted],[redacted].

19. We now consider the components of indirect costs on a more granular basis to look at trends in different cost categories.

Total supply business indirect costs by cost category

20. In relation to our analysis of the individual components of indirect costs, we categorised indirect costs into six broad ‘standardised’ categories, namely the costs relating to: (a) bad debts; (b) metering; (c) sales and marketing; (d) customer service; (e) central services; and (f) other costs.¹⁷ We then requested each of the Six Large Energy Firms to allocate their total indirect costs to each of these six categories. This analysis was conducted at the total supply business level.
21. Table 5 sets out the average indirect cost ratios at a total supply business level for each of the Six Large Energy Firms over the relevant period.

Table 5: Total supply business average indirect cost ratios* for the Six Large Energy Firms by category (FY07 to FY13)

Energy firm	Average bad debt cost ratio	Average metering cost ratio	Average sales and marketing cost ratio	Average customer service cost ratio	Average central service cost ratio	Average other cost ratio
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: CMA analysis of P&L information submitted by the Six Large Energy Firms.
 *Indirect cost item per customer account. The average was based on a simple average of the annual indirect cost item ratios over the period FY09 to FY13.
 Note: For the purposes of restating indirect costs into real terms, we adopted FY07 as the base year.

22. In Supplement 4 to this annex, we describe the trends we saw in each of these indirect cost categories. Based on Table 5 and Supplement 4 to this annex, we found that:
- (a) [REDACTED] generated the lowest indirect cost ratios across most of the indirect cost categories, and significantly outperformed its peers in relation [REDACTED];
 - (b) [REDACTED] and [REDACTED] both had significantly higher sales and marketing cost ratios relative to their peers; [REDACTED] sales and marketing costs were over [REDACTED]%

¹⁷ We defined each indirect cost category as follows: (a) *bad debts*: comprising in-year bad debt write-offs and movements in bad debt provision; and their debt collection, legal costs, debt reminders and other associated debt collection costs; (b) *metering*: comprising meter asset charges, transaction charges, meter reading costs and other associated costs; (c) *sales and marketing*: comprising costs associated with customer acquisition and retention, as well as the costs associated with white label arrangements; (d) *customer service*: comprising their costs for billing, credit management, call centres, customer relations (including complaints handling), cash control and other costs associated with customer service provision; (e) *central services*: comprising their central office recharges, IT and property costs and those costs associated with each of these; and (f) *other items*: comprising any other indirect cost items that may not on their own be material and do not fit into the above categories.

higher than the lowest cost per account supplier with [REDACTED] being over [REDACTED]% higher; [REDACTED] also generated a significantly higher central service cost ratio than the other suppliers, being almost [REDACTED]% higher than the next highest ratio; and

- (c) both [REDACTED] and [REDACTED] generated the lowest customer service cost ratios, while [REDACTED] had significantly higher customer service cost ratios than all the other Six Large Energy Firms, with a cost ratio almost [REDACTED]% higher than the next highest supplier.

Indirect cost ratio comparison with the Mid-tier Suppliers

- 23. As noted in our methodology above, we compared the indirect cost ratios of the Six Large Energy Firms with those of the four Mid-tier Suppliers.
- 24. The financial information that could be provided by the Mid-tier Suppliers was not as detailed as that provided by the Six Large Energy Firms, and therefore our analysis was limited to calculating their indirect cost ratios at a total supply business level rather than on a retail segmental basis, although we would note that the Mid-tier Suppliers predominantly supply the domestic retail markets.
- 25. Table 6 shows the indirect cost ratios for each of the four Mid-tier Suppliers (see also Supplement 5 to this annex for further details).

Table 6: Total supply business indirect costs per customer account for the Mid-tier Suppliers

	2009	2010	2011	2012	2013	2014	Average
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: CMA analysis of P&L information submitted by the Mid-tier Suppliers.

*We calculated the period average indirect cost per customer account by calculating a simple average of each year's indirect costs per account.

†For the purpose of our indirect cost ratio analysis, we used Ovo Energy's P&L information that reported to different financial year-ends for FY09 to FY11. Therefore, FY09 and FY10 are reported to 30 June year-ends, while FY11 represents a six-month accounting period, and FY12 and FY13 are reported to 31 December year-ends. Given that FY11 represented a partial year, we did not include FY11 indirect cost ratios for Ovo Energy in its average calculation.

Note: For the purposes of restating indirect costs into real terms, we adopted FY07 as the base year.

- 26. Based on Table 6, we found that [REDACTED] indirect cost ratios were significantly higher than any of the other relevant firms, including both the Mid-tier Suppliers and the Six Large Energy Firms (as a group). This was due to [REDACTED] change in customer mix, with a significant proportion of its revenue from SME customers in 2009 [REDACTED]. In 2013 and 2014, [REDACTED] indirect cost ratios were comparable with those of the other Mid-tier Suppliers.
- 27. Taking the [REDACTED] Mid-tier Suppliers in turn, we noted that Utility Warehouse generated the lowest indirect cost ratios, and that this was lower than the

ratios of the Six Large Energy Firms.¹⁸ Based on our analysis, Ovo Energy would be ranked joint first with SSE over the period under consideration, with Co-operative Energy ranking third, ahead of Centrica, E.ON, RWE and [✂]. This comparison is represented graphically in Figure 1.

Figure 1: Comparison of total supply business average indirect cost ratios between the Mid-tier Suppliers and the Six Large Energy Firms

[✂]

Source: CMA analysis of P&L information submitted by the Six Large Energy Firms and Mid-tier Suppliers.

Notes:

1. For the purposes of restating indirect costs into real terms, we adopted FY07 as the base year.
2. We calculated the average indirect cost ratio based on a simple average of the annual ratios for each firm.

28. Based on Figure 1, the Mid-tier Suppliers compared relatively favourably against the Six Large Energy Firms (as a group).
29. The Mid-tier Suppliers could not allocate their indirect costs by customer type therefore with the mid-tiers we were limited to looking at total supply only. The Mid-tier Suppliers are predominantly domestic customer focused. Below we compare the Six Large Energy Firms' domestic indirect costs per account against the Mid-tier Suppliers' total supply.

Figure 2: Comparison of domestic supply business average indirect cost ratios of the Six Large Energy Firms and total supply costs of the Mid-tier Suppliers

[✂]

Source: CMA analysis.

30. Ovo Energy still compares favourably against the Six Large Energy Firms, joint second with Centrica and Scottish Power. However, Co-operative Energy becomes the worst performer, with a higher cost than RWE npower or EDF Energy.
31. The Mid-tier Suppliers are currently investing to grow, scaling up their operations substantially and acquiring significant numbers of new customers, who have associated on-boarding costs to accompany them. If the Mid-tier Suppliers were to reach scale and their growth slow down, we consider it reasonably likely that their indirect costs per customer account would decline with the movement to steady state and the realisation of economies of scale.
32. Based on Figures 1 and 2 and their stage of growth, we believe that the Mid-tier Suppliers compared relatively favourably against the Six Large Energy Firms in recent years.

¹⁸ Utility Warehouse has an operating relationship with RWE that means some typical energy supply costs are borne by RWE.

Summary of our indirect cost analysis

33. As noted in Annex B, the Six Large Energy Firms have submitted that there are not significant inefficiencies in the industry and have put forward the view that differences between suppliers are driven by company-specific differences such as customer mix and service differentiation. We acknowledge that there may be legitimate differences in suppliers' costs to serve as a result of customer mix, however we do not believe that this explains away the significant differential in costs to serve. In addition, we note that we do not see any evidence of significant differences in market positioning or service differentiations across the Six Large Energy Firms.
34. Based on our analysis we have found that:
- (a) [REDACTED];
 - (b) [REDACTED]; and
 - (c) [REDACTED].

Supplement 1: Indirect cost information

Introduction

1. This supplement sets out the limited number of adjustments we made to the indirect costs of the Six Large Energy Firms.
2. To eliminate the effects of inflation on indirect costs, we calculated the indirect cost ratios in 'real terms', using the Consumer Price Index (CPI) as our deflator and FY07 as our base year.¹⁹
3. Using the annual CPI movement taken from the Office for National Statistics, we deflated the costs of years FY08 to FY14 to make them comparable to 2007 prices. The annual CPI change used for each of the Six Large Energy Firms and the deflator applied to FY08 to FY14 can be seen in Table 1.

Table 1: Annual CPI and associated deflator

<i>Deemed Financial Year</i>	<i>Financial accounts year end</i>	<i>Firm</i>	<i>Annual CPI index</i>	<i>Deflator (Costs x %)</i>
FY 2007	31 December 2007	Centrica, E.ON, EDF Energy, RWE and Scottish Power.	2.1%	100.0%
	31 March 2008	SSE	2.5%	100.0%
FY 2008	December 2008	As above	3.1%	96.9%
	March 2009		2.9%	97.1%
FY 2009	December 2009		2.9%	94.1%
	March 2010		3.4%	93.8%
FY 2010	December 2010		3.7%	90.6%
	March 2011		4.0%	90.0%
FY 2011	December 2011		4.2%	86.8%
	March 2012		3.5%	86.9%
FY 2012	December 2012		2.7%	84.5%
	March 2013		2.8%	84.5%
FY 2013	December 2013		2.0%	82.8%
	March 2014		1.6%	83.1%
FY 2014	December 2014		0.5%	82.4%
	March 2015		0.0%	83.1%

Source: Office for National Statistics – CPI data set.

Additional adjustments to indirect costs

4. We describe some of the other minor adjustments we made to the indirect costs for each of the Six Large Energy Firms (when applicable):
 - (a) Centrica had included some metering costs as direct costs above the gross profit line. These have been brought into indirect costs in this analysis and mapped to 'metering costs'.

¹⁹ Office for National Statistics. CPI data set used – last updated 16 December 2014.

- (b) EDF Energy had included some commission costs as direct costs above the gross profit line. We have included these costs within indirect costs within our analysis and mapped them to 'sales and marketing costs'.
- (c) SSE had some third-party intermediary costs recorded as direct costs above the gross profit line. We have included these within indirect costs and mapped them to 'sales and marketing costs'.

Supplement 2: Total indirect cost ratios for the Six Large Energy Firms

Introduction

1. This supplement sets out the total indirect cost ratios for each of the Six Large Energy Firms over the relevant period.
2. Table 1 sets out the total customer accounts, the nominal and real total indirect costs and the indirect cost ratio (ie £ per customer account). The table is split by firm and by year with a simple average of the eight years shown at the foot of the table.

Table 1: Annual total supply business indirect costs and ratios (FY07 to FY14) and average ratios

<i>Financial year</i>	<i>Energy firm</i>	<i>Total customer accounts</i>	<i>Total indirect costs (nominal) £'000</i>	<i>Total indirect costs (adjusted for CPI) £'000</i>	<i>£/account</i>
FY07	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
FY08	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
FY09	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
FY10	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
FY11	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
FY12	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
FY13	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
FY14	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
Average	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]

Source: CMA analysis of P&L information of the Six Large Energy Firms.

Notes:

1. Simple average of the eight years shown at the foot of the table.
2. SSE FY07 and FY08 customer account figures omit industrial customers so will be marginally overstated.

Supplement 3: Segmental indirect cost ratios for the Six Large Energy Firms

Introduction

1. This supplement sets out the indirect cost ratios for each of the Six Large Energy Firms' domestic and SME retail activities (split by fuel type) over the period FY07 to FY14.
2. Table 1 sets out the indirect cost ratios (ie £ per customer account) in real terms for domestic and SME supply, split by fuel type.

Table 1: Domestic and SME indirect cost ratios in real terms (FY07 to FY14) and average ratios

Financial year		Domestic electricity	Domestic gas	SME electricity	SME gas	<i>£/account</i>			
						Domestic	SME	Electricity	Gas
FY07	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
FY08	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
FY09	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
FY10	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
FY11	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
FY12	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
FY13	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]

		<i>£/account</i>							
<i>Financial year</i>		<i>Domestic electricity</i>	<i>Domestic gas</i>	<i>SME electricity</i>	<i>SME gas</i>	<i>Domestic</i>	<i>SME</i>	<i>Electricity</i>	<i>Gas</i>
<i>FY14</i>	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
<i>Average</i>	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]

Source: CMA analysis of P&L information of Six Large Energy Firms.

Notes:

1. Simple average of the five years shown at the foot of the table.
2. All costs are reported in real terms with 2007 as the base year to make the figures comparable to others in the indirect cost analysis.

Supplement 4: Indirect cost categories for the Six Large Energy Firms

Introduction

1. This supplement sets out the indirect cost ratios for each of the Six Large Energy Firms based on the six broad indirect cost categories we used for the purpose of our analysis.
2. Table 1 shows for each of the Six Large Energy Firms the indirect cost per customer account for each of their indirect cost categories.

Table 1: Total supply business indirect cost ratios by cost category for the Six Large Energy Firms

<i>Financial year</i>	<i>Energy firm</i>	<i>Bad debt costs</i>	<i>Metering costs</i>	<i>Sales and marketing costs</i>	<i>Customer service costs</i>	<i>Central service costs</i>	<i>Other costs</i>
FY07	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
FY08	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
FY09	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
FY10	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
FY11	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
FY12	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
FY13	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Average	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	[X]	[X]

Source: CMA analysis of P&L information of Six Large Energy Firms.

Notes:

1. All costs are reported in real terms with 2007 as the base year to make the figures comparable to others in the indirect cost analysis.
2. Simple average of the seven years shown at the foot of the table.

Commentary on indirect cost ratios by cost category

3. Based on Table 4:

- (a) **Bad debt cost ratios:** several of the Six Large Energy Firms showed an increase in bad debt costs from the impact of the financial crash and subsequent recession. The biggest peaks in bad debt cost ratios were seen for [REDACTED] and [REDACTED]. After this peak, the cost ratios fell to similar levels seen in FY07. We note that this trend did not significantly alter when looking at bad debts as a percentage of revenues.
- (b) **Metering cost ratios:** over the period, this cost ratio remained relatively flat for most of the Six Large Energy Firms. The gap between the highest ([REDACTED]) and lowest ([REDACTED]) ratios narrowed over the period.
- (c) **Sales and marketing cost ratios:** we note that this cost ratio would be heavily influenced by each firm's business and customer acquisition strategy. We found that over the period of review all the Six Large Energy Firms reduced their sales and marketing cost ratios on a per customer account basis. The firms that had spent the most in sales and marketing (ie [REDACTED] and [REDACTED]) reduced their costs the most and the firm that spent the least, [REDACTED], reduced its costs the least. Over the period of review, on average [REDACTED] had the lowest cost ratio and [REDACTED] the highest.
- (d) **Customer service cost ratios:** these ratios were significantly higher for [REDACTED] than for all the other Six Large Energy Firms. Over the period, while these ratios fell for [REDACTED], they remained significantly high relative to the other suppliers. [REDACTED], although significantly lower in its cost ratios than [REDACTED], showed year-on-year increases in its customer service cost ratio. [REDACTED] showed the strongest signs of cost reductions over this period.
- (e) **Central service cost ratios:** were significantly higher for [REDACTED] than the other Six Large Energy Firms. [REDACTED] central service costs also increased over the period, while [REDACTED] incurred the lowest average central service cost ratio.

Supplement 5: Mid-tier Suppliers' indirect cost ratios

Introduction

1. This supplement sets out the indirect cost ratios for the Mid-tier Suppliers.
2. Based on the indirect cost information provided by the four Mid-tier Suppliers, we calculated total indirect costs per customer account. These results are set out in Table 1. In calculating their indirect cost ratios, we would highlight that:
 - (a) to make these figures comparable to the other parts of our indirect cost ratio analysis, all figures were adjusted for inflation based on CPI using 2007 as the base year; the adjustment made is reported in the table below; and
 - (b) the average provided at the bottom of the table is a simple average; for Ovo Energy, it excludes FY10 because this was a six-month accounting period as a result of a year-end change during 2011. In the table below, for Ovo Energy, FY09 relates to the period ending 30 June 2010, FY10 is for the 12 months to 30 June 2011, FY11 is for the six months to 31 December 2011, and for FY12, FY13 and FY14 the financial year matches the calendar year.

Table 1: Total supply business indirect cost ratios for the Mid-tier Suppliers

<i>Deemed financial year</i>		[X]	[X]	[X]	[X]
FY09	Customer numbers	[X]	[X]	[X]	[X]
	Meters	[X]	[X]	[X]	[X]
	Customer accounts	[X]	[X]	[X]	[X]
	Total indirect costs	[X]	[X]	[X]	[X]
	CPI adjustment made:	[X]	[X]	[X]	[X]
	Total indirect costs per customer CPI adjusted	[X]	[X]	[X]	[X]
FY10	Customer numbers	[X]	[X]	[X]	[X]
	Meters	[X]	[X]	[X]	[X]
	Customer accounts	[X]	[X]	[X]	[X]
	Total indirect costs	[X]	[X]	[X]	[X]
	CPI adjustment made:	[X]	[X]	[X]	[X]
	Total indirect costs per customer CPI adjusted	[X]	[X]	[X]	[X]
FY11	Customer numbers	[X]	[X]	[X]	[X]
	Meters	[X]	[X]	[X]	[X]
	Customer accounts	[X]	[X]	[X]	[X]
	Total indirect costs	[X]	[X]	[X]	[X]
	CPI adjustment made:	[X]	[X]	[X]	[X]
	Total indirect costs per customer CPI adjusted	[X]	[X]	[X]	[X]
FY12	Customer numbers	[X]	[X]	[X]	[X]
	Meters	[X]	[X]	[X]	[X]
	Customer accounts	[X]	[X]	[X]	[X]
	Total indirect costs	[X]	[X]	[X]	[X]
	CPI adjustment made:	[X]	[X]	[X]	[X]
	Total indirect costs per customer CPI adjusted	[X]	[X]	[X]	[X]
FY13	Customer numbers	[X]	[X]	[X]	[X]
	Meters	[X]	[X]	[X]	[X]
	Customer accounts	[X]	[X]	[X]	[X]
	Total indirect costs	[X]	[X]	[X]	[X]
	CPI adjustment made:	[X]	[X]	[X]	[X]
	Total indirect costs per customer CPI adjusted	[X]	[X]	[X]	[X]
FY14	Customer numbers	[X]	[X]	[X]	[X]
	Meters	[X]	[X]	[X]	[X]
	Customer accounts	[X]	[X]	[X]	[X]
	Total indirect costs	[X]	[X]	[X]	[X]
	CPI adjustment made:	[X]	[X]	[X]	[X]
	Total indirect costs per customer CPI adjusted	[X]	[X]	[X]	[X]

Source: CMA analysis of P&L information of four Mid-tier Suppliers.

*Co-op Energy commenced trading in December 2010.

Note: All costs are reported in real terms with 2007 as the base year to make the figures comparable to others in the indirect cost analysis.

Annex B: Parties' responses

Introduction

1. In this annex, we set out a summary of the views of parties relating to our provisional findings concerning the competitive benchmark price and revenue (set out in Appendix 10.5 of our provisional findings). We have published the responses we received to our provisional findings and our Remedies Notice on our website. We address the majority of these submissions in this appendix, while others are addressed in Appendix 9.10.

Overall comments on the provisional findings

2. EDF Energy²⁰ told us that our competitive benchmark for the industry required a number of substantial assumptions, and did not take account of key differences between suppliers in its conclusions. It added that there were significant methodological weaknesses in the CMA's approach and therefore in the conclusions drawn.
3. RWE²¹ told us that the CMA made an inappropriate ex post assessment of the level of costs that a 'reasonably efficient' operator could have been expected to achieve, by imposing a presumption that was unsupported by evidence in its benchmarks that the Six Large Energy Firms were inefficient in each of the three main cost categories (ie direct costs, indirect costs and the capital charge). It added that the CMA did not perform the normal econometric, overhead and functional benchmarking analyses that were commonly applied by regulators when assessing an efficiency gap.
4. SSE²² told us that the competitive benchmark analysis was unsound, and that alongside the ROCE analysis, the economic profit generated by the Six Large Energy Firms was assessed by taking into account the costs that would have been incurred by a hypothetically efficient supplier over the Relevant Period. It added that this analysis had led the CMA to claim that the Six Large Energy Firms were 'overcharging' domestic and SME customers relative to the price that an efficient supplier could offer. It also told us that our analysis estimated the degree to which prices were above the competitive level by assuming that all competitors should have been able to achieve the cost performance of a hypothetically efficient supplier with respect to direct and indirect costs despite the fact that no retail supplier had achieved this over the Relevant Period.

²⁰ EDF Energy response to provisional findings, p21, profitability annex.

²¹ RWE npower response to provisional findings profitability analysis, p4, paragraph 6.1.

²² SSE response to provisional findings, Annex 1, p2, paragraph 1.6.

SSE told us that it believed that correcting for the errors in the CMA's analysis eliminates any excess revenues in the industry altogether.

5. Centrica told us that our estimate of the competitive benchmark revenue or price failed to recognise differentiated costs and prices across products, and differences in the risks and capital required to support different customer segments. It added that undue reliance was placed on a period of benign and falling wholesale market costs.²³
6. Scottish Power told us that the benchmarks used to assess the efficiency of the Six Large Energy Firms were neither meaningful nor achievable as they were based on a selective use of data and used a methodology that did not take proper account of: (a) year-on-year variability in cost drivers (particularly in relation to wholesale energy costs); (b) the fact that many such cost drivers had different effects on different suppliers (due to differences in their customer mix such as the proportion of customers paying by direct debit); and (c) that many such factors were driven by either unpredictable wholesale price variation or consumer choice and were therefore not directly controllable by suppliers.²⁴ In benchmarking the performance of regulated companies, it told us that it was standard practice to condition that performance on factors that were outside the direct control of those firms. It told us that the benchmarking analysis for the Six Large Energy Firms carried out by the CMA did not control for such factors.²⁵
7. E.ON told us that the CMA analysis on efficient prices and costs had significant weaknesses and recycled many of the same assumptions and associated problems that affected the ROCE analysis. It therefore told us that the results of the competitive benchmark analysis suffered from the same issues, which, in its view, effectively invalidated its results.²⁶

Benchmarking indirect costs in the provisional findings

8. EDF Energy told us that the relative proportions of customer payment types would have a significant effect on indirect costs, eg cash/cheque and prepayment customers had significantly higher costs to serve, as noted by the CMA. It explained that this would also result in variances in gross margin as the higher indirect costs were passed through in price differentials, thereby

²³ Centrica response Appendix to provisional findings and possible remedies, p21, paragraph 76. We address parties' submissions on the capital required by energy retail suppliers and the use of the intermediary fee model in Appendix 3.4.

²⁴ Scottish Power response to provisional findings, p15, paragraph 4.2.

²⁵ Scottish Power response to provisional findings, p17, paragraph 8.

²⁶ E.ON response to provisional findings, p7, paragraph 3.4. We address parties' submissions on our ROCE analysis in Appendix 3.4.

increasing gross margin for those suppliers with higher proportions of cash/cheque and prepayment customers.²⁷

9. EDF Energy also told us that the proportion of online 'self-serve' customers would affect a supplier's indirect cost to serve, and that suppliers with a higher proportion of self-serve customers would be expected to have a lower level of indirect costs.²⁸
10. RWE told us that the CMA's benchmark for indirect costs was simplistic and implied that the majority of operators had been inefficient without adequate supporting evidence. It told us that its main weaknesses were as follows:²⁹
 - (a) The analysis incorrectly assumed that all differences in unit costs between firms could be characterised as inefficiency because it did not control for other drivers of differences in costs, such as customer mix, geography, legacy issues and scale. Under regulatory standard practice, it told us that these factors could be controlled for using econometric analysis and other quantitative techniques. Consequently, it told us that there was a risk that the CMA would wrongly ascribe differences in cost arising from these factors to inefficiency.
 - (b) The analysis performed no external benchmarking to determine whether the Six Large Energy Firms were inefficient by reference to other competitive industries. It added that the CMA made an unsupported presumption that the Six Large Energy Firms must on average be inefficient, even though this position had not been tested.
 - (c) The CMA supported its benchmark based on limited evidence from the indirect cost ratios of mid-tier firms. It therefore wrongly compared the 'greenfield' mid-tier firms, whose total market share was only around 10%, with the 'brownfield' business of the Six Large Energy Firms which would have substantially different cost bases, operating models and business strategies.
11. SSE told us that the proposed adjustments to indirect costs were founded on material errors of fact and assessment, and that the CMA appeared to believe that there were material indirect cost efficiency gains available to the Six Large Energy Firms. It added that the available evidence did not support this.³⁰

²⁷ EDF Energy response to provisional findings, p22, profitability annex.

²⁸ EDF Energy response to provisional findings, p22, profitability annex.

²⁹ RWE npower response to provisional findings profitability analysis, p4, paragraph 6.4.

³⁰ SSE response to provisional findings, Annex 1, p25, paragraphs 1.75–1.79.

12. SSE told us that its indirect costs were materially reducing the average and lower quartile indirect cost benchmarks used by the CMA for its analysis. However, it told us that it would expect to have lower indirect costs than other firms, since it was at a different point in its investment cycle for domestic customers.³¹
13. Centrica told us that it was indeed true that indirect costs per account varied significantly across the industry (as the CMA had observed). However, it told us that it could not be assumed that all this variation stemmed from inefficiency, and that variations in operating costs were wholly consistent with competitive markets, given that this:³²
 - (a) could reflect a customer's choice to pay through different methods;
 - (b) could result from differentiation in the levels of customer service offered by suppliers; and
 - (c) might be a result of short-term underinvestment which could adversely impact customer service levels in the longer term.
14. Furthermore, Scottish Power told us that more problematic for the justification of the lowest quartile measure for benchmarking indirect costs was the selective use of the cost information of the Mid-tier Suppliers. It told us that there was only one mid-tier firm that represented a valid comparison to the large integrated suppliers and which had indirect costs below the lower quartile measure for those suppliers. It therefore told us that this approach was inherently biased and sensitive to outliers since, in the presence of differences in customers and operating conditions across firms, the single best performing firm was unlikely to be a good representative of the industry as a whole.³³
15. In relation to indirect costs and the comparison to the Mid-tier Suppliers, Ovo Energy and Co-operative Energy, E.ON told us that the concept of a lower quartile in a sample of six firms and a read-across to only two Mid-tier Suppliers was not statistically robust.³⁴ E.ON told us that the CMA appeared not to have taken account of differences in region or customer mix. It also told us that the level of indirect costs per customer varied by business segment, tariff type and geography (among others).

³¹ SSE response to provisional findings, Annex 1, p25, paragraph 1.75–1.79.

³² Centrica response Appendix to provisional findings and possible remedies, p46, paragraph 159.

³³ Scottish Power response to provisional findings, p17, paragraph 4.7.

³⁴ E.ON response to provisional findings, p115, paragraphs A85–86.

16. Opus Energy told us that, with regard to indirect costs, the CMA had omitted to take the customer into account. It told us that the UK energy supply sector had one of the worst net promotor scores of any industry in the country, and that this was partly down to the poor levels of service provided to customers. It told us to consider the quality of service that would be provided by a 'benchmark' company which had indirect costs equivalent to a low investor in service costs.

Other responses to the provisional findings

17. EDF Energy told us that the CMA should review and consider whether there were outliers that should be treated differently within the current broad groups.³⁵ It considered that the CMA's grouping of all Six Large Energy Firms together in a provisional finding of unilateral market power, without differentiation, limited EDF Energy's ability to compete on a strategy of differentiation that was founded on building trust with customers, even though the Six Large Energy Firms had each taken significantly different approaches.³⁶
18. EDF Energy told us that it did not believe that a direct comparison could be made between the Mid-tier Suppliers and the Six Large Energy Firms, eg smaller suppliers attracted more direct debit customers who were cheaper to serve, and given their simpler customer mix were able to take advantage of new technologies more easily.³⁷
19. EDF Energy told us that it had concerns over the robustness of indirect costs allocations between suppliers, and that this could result in misleading data for comparison.³⁸
20. SSE told us that the extreme assumptions adopted in the competitive benchmark analysis would inevitably lead to a finding of excessive profits, even where they did not exist. Moreover, it added that even if the CMA's results could be considered to be informative, the profits appeared to be highly skewed towards a single supplier, with all other suppliers making more limited profits. It therefore told us that this could hardly be regarded as a market feature.³⁹

³⁵ EDF Energy response to provisional findings, p21, profitability annex.

³⁶ EDF Energy response to provisional findings, p13, paragraph 4.31.

³⁷ EDF Energy response to provisional findings, p22, profitability annex.

³⁸ EDF Energy response to provisional findings, p25, profitability annex.

³⁹ SSE response to provisional findings, Annex 1, p3, paragraph 1.12.

21. Centrica told us that the competitive benchmark analysis should be adjusted at least as follows:⁴⁰
- (a) Extending the period of analysis to include FY07 and FY08.
 - (b) Calculating the lower quartile commodity benchmark over the full five-year period rather than for each individual year.
22. Scottish Power outlined a different set of scenarios and adjustments for the competitive benchmark analysis:⁴¹
- (a) Pass-through of average wholesale costs on the basis that variations in these costs were largely determined by wholesale price fluctuations and the level of risk inherent in a given strategy.
 - (b) Indirect cost benchmarks calculated on the basis of average mid-tier indirect costs – this was chosen on the basis that the CMA appeared to justify its use of the lower quartile benchmark for indirect costs on the cost performance of a single mid-tier independent supplier that had the lowest costs of all such comparable suppliers, an approach that it considered was highly selective and vulnerable to outliers. It considered that average mid-tier cost performance was a more reliable benchmark.
 - (c) Lower quartile wholesale cost benchmark on the basis of average company costs across several years – this scenario was modelled as a second alternative to the CMA’s approach. It told us that this would remove much of the apparent ‘efficiency’ that in fact was driven by the benchmark changing very frequently due to annual volatility of wholesale costs.
 - (d) Scottish Power told us that scenarios (a) and (b) together would address their critiques of the approach to benchmarking of wholesale and indirect costs taken by the CMA.

Responses to Appendix 3.5 of the provisional decision on remedies

23. Post the provisional findings an updated indirect costs analysis was published in Appendix 3.3 alongside the provisional decision on remedies taking into account many of the responses to the provisional findings. Below we set out the responses to Appendix 3.5 of the provisional decision on remedies and the responses from the authorised economic advisers of the main parties

⁴⁰ Centrica response Appendix to provisional findings and possible remedies, p47, paragraph 161.

⁴¹ Scottish Power response to provisional findings, p29, paragraph 6.4.

following a confidentiality ring where this analysis, among others, was made available.

24. SSE's advisers told us that it was inappropriate to use the 'lowest cost'⁴² as a benchmark. They told us that this was an extreme benchmark that was at odds with established practice. SSE said that given the limitations of such data, the CMA should be adopting a more cautious approach to benchmarking, for example by taking the upper quartile.⁴³
25. SSE's advisers also said that while the CMA had adjusted for CPI when looking at the trend in indirect costs the CMA used nominal costs to calculate the detriment, which the advisers believed was an oversight on the CMA's part.⁴⁴
26. SSE suggested that it appeared that the indirect cost benchmarking analysis had not been updated despite Appendix 3.6 of the provisional decision on remedies suggesting that some suppliers reclassified some of their indirect costs.⁴⁵
27. SSE also told us that while the CMA accepted that suppliers had different investment cycles which could affect the results, it was wrong to suggest that eight years was long enough cover a full investment cycle. SSE had [✂].
28. In their confidential submission RWE's advisers told us that its two biggest concerns were that no credit had been given to firms who beat the benchmark when calculating the detriment and that the lower quartile benchmark was not supported by evidence or the data.⁴⁶ The advisers submitted that the median would be a more appropriate benchmark to use, or lower quartile excluding Centrica, which was an anomaly due to its size.
29. RWE's advisers submitted that it was established practice in regulated markets that if a supplier outperformed a cost benchmark it would normally be allowed to retain these profits. The advisers stated that the CMA's decision to allocate £0 to those suppliers surpassing the benchmark overstated the detriment.⁴⁷
30. RWE's advisers submitted that for this analysis to be reliable it was necessary to control for customer mix, tariff mix, geographical locations, firm

⁴² Submission of SSE's authorised advisers, paragraph 3.3.

⁴³ SSE confidential response to Appendix 3.5 of the provisional decision on remedies, paragraph 3.3.13.

⁴⁴ Submission of SSE's authorised advisers, paragraph 3.10.

⁴⁵ SSE confidential response to Appendix 3.5 of the provisional decision on remedies, paragraph 3.3.14.

⁴⁶ Submission of RWE's authorised advisers, paragraph 3.6.

⁴⁷ Submission of RWE's authorised advisers, paragraphs 3.8 & 3.9.

specific/legacy issues and differences in scale, which the CMA had not done.⁴⁸

31. RWE's advisers told us [REDACTED].⁴⁹

32. In its response to the provisional decision on remedies, RWE told us:

It is true that RWE (and, we understand, some other parties) has at various times during this Investigation accepted that it has higher unit indirect costs than some other retail energy supply firms. RWE continues to accept that is the case. However, the CMA's presumption that this variation in unit costs reflects a lack of competition is incorrect and has no basis in economic theory. RWE's higher indirect costs do not mean it is 'inefficient' in a sense which is relevant for a competition investigation, nor do they imply that it is appropriate for the CMA to disallow our actual costs incurred in its 'efficiency' calculations.⁵⁰

33. [REDACTED].⁵¹

34. E.ON's economic advisers said that the analysis performed might not be on a like for like basis given the scope for companies to allocate certain costs differently. As an example it stated that customer retention cost and meter rental costs could conceivably be allocated as a direct or indirect cost. The advisers told us that simple allocation differences, for example the difference between activity-based costing against allocation by another metric, had a material impact on the results.⁵² To support the above claim the advisers noted that the supplier with the lowest indirect costs had the highest direct costs per customer, which suggested that this supplier's relatively low level of indirect cost might be at least in part the result of allocating more costs to direct costs, rather than being the result of superior efficiency. In addition, E.ON's economic advisers showed that the correlation between the direct and indirect costs by supplier (controlling for the supplier and year) is negative and greater in magnitude than 0.5 across all SLEFs for the period 2007 to 2014.

35. E.ON's advisers told us that the approach to indirect costs favoured a capital-intensive strategy as it ignored how a company financed its operations. For

⁴⁸ Submission of RWE's authorised advisers, paragraph 3.14.

⁴⁹ Submission of RWE's authorised advisers, paragraph 3.24.

⁵⁰ RWE npower confidential response to Appendix 3.5 of the provisional decision on remedies, paragraph 34.

⁵¹ RWE npower confidential response to Appendix 3.5 of the provisional decision on remedies, paragraphs 35.1–35.4.

⁵² Submission of E.ON's authorised advisers, paragraphs 5.4.1–5.4.11.

example, a company that owned its assets might have a lower indirect cost base because it avoided rent. E.ON's advisors noted that there was no reason why a more capital intensive strategy should be viewed as systematically more efficient in the energy supply market. As the CMA had excluded depreciation from the analysis this was exacerbated, since this implies there is no degree of compensation for suppliers' asset ownership structures.⁵³

36. E.ON's advisers also submitted that lower costs did not always mean greater efficiency, nor did it necessarily lead to better customer outcomes. As an example, the advisers said that E.ON read its customers' meters twice a year whereas SSE did this once every two years. The advisers suggested that while SSE's approach might be lower cost, it might not necessarily lead to better customer outcomes.⁵⁴ Another example referred to was sales and marketing spend, where higher costs may lead to higher numbers of customer gains, such that lower costs are not necessarily preferable or more efficient. The CMA should focus on only those indirect costs which a higher cost would more reasonably be argued to be due to inefficiency.
37. Finally, E.ON's advisors noted that higher indirect costs are associated with different payment types (as noted by the CMA in other parts of its analysis). E.ON's advisors argued that the CMA's analysis does not control for differences in payment type mix across suppliers, in relation to bad debts, customer service and metering costs, but that the CMA should take such differences into account, given the differences in costs across different payment types. Adjusting for these would materially affect the results. The advisors own calculation shows that making some adjustments for i) payment type mix; ii) cost allocation methodologies; iii) allocation across direct or indirect costs. E.ON's economic advisors noted that a number of their concerns around the calculation of indirect cost inefficiency were not quantifiable, and so the adjustments made relate to only a small set of the assumptions over which they expressed concern. Making adjustments for only those assumptions that were quantifiable, however, reduced E.ON's estimated inefficiency by 76%.⁵⁵
38. In its response to the provisional decision on remedies, E.ON told us that it considered the CMA's indirect costs analysis to be methodologically weak with all cost differentials being labelled as inefficiency with insufficient assessment made of the underlying drivers. In addition, it stated that selection

⁵³ Submission of E.ON's authorised advisers, paragraphs 5.1–5.5.5.

⁵⁴ Submission of E.ON's authorised advisers, paragraphs 5.7–5.7.4

⁵⁵ Submission of E.ON's authorised advisers, para 5.7-5.7.4

of a lower quartile from a population of 6 is unlikely to lead to statistically significant results.⁵⁶

39. Centrica's economic advisers told us that the CMA had overstated the detriment by not reducing the economic profits of those suppliers beating the benchmark. The advisers also submitted that there was no evidence presented to justify the claims of inefficiency and that cost variation alone is not evidence of inefficiency.⁵⁷
40. EDF Energy's advisers told us that the cost differences were not down to inefficiency but more likely a result of differing customer mixes. Direct debit customers were lower-cost to serve and without adjusting for these the analysis could not be relied upon. Equally, due to very different customer mixes any comparison to the Mid-tier Suppliers was also not valid.⁵⁸
41. In its response to the provisional decision on remedies EDF told us that:

EDF Energy recognises that there have been inefficiencies in our indirect cost base in the past but consider that these have not been passed on to customers or contributed to excess profits. In particular, EDF Energy's domestic retail prices are either below or only slightly above the efficient revenue benchmark calculated by the CMA, and they are consistently lower than industry averages over the period being investigated.⁵⁹
42. Below we set out our responses to the above.

CMA response to parties' views

43. Some of the parties submitted that the CMA's benchmark was extreme, with SSE suggesting that using the lowest cost provider was not justified. We note that our base case indirect benchmark is the lower quartile scenario and not the lowest cost. The lowest cost scenario is to illustrate the difference if the CMA were to assume that the supplier with the lowest costs was the most efficient. The Appendix makes it clear that our central estimate is that of the lower quartile cost, for example see paragraph 21 of this appendix.
44. Some suppliers suggested that the CMA had failed to capture the full investment cycle. While the period of our analysis may not have captured the full investment cycle for all items for some suppliers, such as billing systems as

⁵⁶ E.ON confidential response to Appendix 3.5 of the provisional decision on remedies, paragraph 10.

⁵⁷ Submission of Centrica's authorised advisers.

⁵⁸ Submission of EDF Energy's authorised advisers following April 2016 confidentiality ring.

⁵⁹ EDF Energy response to the provisional decision on remedies, paragraph 1.5.

outlined by SSE, we observe that the large majority of these costs should be capitalised and depreciated. As depreciation is excluded from our analysis there should be no significant impact. While we recognise that installing a new billing system may temporarily push up indirect costs, for it to do so materially and/or persistently would suggest a failure to efficiently install a new system. We note that reliable financial data from all parties pre-2007 does not exist, such that it has not been possible for us to carry out analysis over a longer period.

45. SSE's advisers submitted that we had failed to adjust for CPI when adding the excess indirect costs to the economic profit. However, adjusting for CPI was to ensure that inflationary impacts were not distorting any view of trend so that any cost increases year on year were not exaggerated. When looking at profits we have not adjusted for inflation, equally when adding any cost overspends to economic profit it is right to use nominal costs and not CPI adjusted costs.
46. A number of suppliers told us that customer mix would significantly distort the results. We agree that customer mix will have an impact on the results. However, as previously outlined, the supplier with the highest proportion of customers that are highest cost to serve (Centrica) has a total indirect cost base that is below our benchmark. Therefore, we consider our approach to be conservative.
47. Some of the parties told us that the suppliers who outperformed the benchmark should have these costs deducted from the economic profits as calculated in the ROCE working paper. If just focusing on indirect costs in excess of our benchmark it would be inappropriate to net out those who had beaten the mark as this would understate the total cost excesses. However, as set out in paragraph 27, we recognise that there is some uncertainty regarding the actual efficient level of costs. Therefore, we have considered a scenario in which we include SSE's and Centrica's outperformance against our benchmark as a sensitivity in our assessment of the detriment.
48. Some of the parties submitted that economies of scale impacted the results and in particular that Centrica should be disregarded from the analysis given its scale. However, we note that in spite of its greater scale, Centrica does not have the lowest costs. Moreover, the smallest of the larger providers, Scottish Power, has the third lowest costs per customer and near to our benchmark. We have therefore included all of the Six Large Energy Firms in the comparator set.
49. E.ON's economic advisers raised the issue of cost allocation, suggesting that it could impact the results. As set out in paragraph 7, we agree that there may

be scope for allocation differences between suppliers affecting the results. We felt this was a greater risk when looking at individual cost categories within indirect costs which is why we did not benchmark these costs despite having the ability to do so. We also recognise that there could be allocation differences between indirect and direct costs and have not carried out a full audit of allocations. However, we consider that the scope of any such differences will be limited, for the following reasons:

- (a) Profit and loss cost lines that clearly identified indirect costs were manually moved to indirect costs. The direct cost categories remaining are wholesale energy costs, transportation costs, distribution costs and obligation costs. We consider that there is limited scope for misallocation between these categories and indirect costs given the clear differences between these cost types and firms' need for accounting information to provide a useful basis on which to manage their operations.
 - (b) When asking suppliers to separate out their indirect costs into bad debts, metering, sales & marketing, customer service and central service costs we set out the type of costs we expected to see in each category. No supplier responded to this request by suggesting they had any of these cost items included in direct costs.
 - (c) The suppliers have been separating out their direct and indirect costs in the CSS for a number of years now.
 - (d) In response to the original supplier questionnaire the parties were required to fill out a definitions tab to outline at a high level what costs were included within each line of the profit and loss account. From reviewing these we identified no misallocations.
50. Further to the above, E.ON's advisers submitted that SSE had the lowest indirect cost per account but highest direct cost per account, which suggested that this supplier's relatively low level of indirect cost might be in part the result of allocating more costs to direct costs. The observation by the advisers is accurate. However, this is due to SSE having high energy costs and to a lesser extent high network costs. We do not believe this is due to misallocation. Additionally, Centrica, which has indirect costs below our benchmark, has the lowest direct costs when measured against customer numbers.
51. E.ON's economic advisers also told us that the CMA's approach favoured a capital-intensive strategy as, for example, it made no allowance for whether assets were owned or leased. Leasing an asset would increase costs versus owning an asset which would lead to a higher depreciation charge. The

advisers said that the extra cost borne by those that leased more assets could not be attributed to inefficiency. The advisers argued that the CMA exacerbated this by excluding depreciation from its analysis, since this implies no degree of compensation for suppliers' asset ownership structures is made in the CMA's analysis. The suggestion was that suppliers with higher indirect costs might have lower depreciation charges due to the way the company financed itself. When looking at the data, however, we have observed that this is not true. Without making any adjustments for scale, EDF and RWE have the highest absolute depreciation charges across the entire period of review. If we included depreciation in the analysis it would increase the detriment contributed by these two suppliers, not reduce it.

52. We agreed with E.ON that higher costs in certain categories might be indicative of a higher quality service being provided rather than inefficiency. However, as set out in paragraph 17, we did not find any evidence to suggest that one or more of the Six Large Energy Firms was providing a materially higher quality service than the others, which would have justified the level of costs differences that we have observed. Furthermore, we note that higher costs can, in several cases, be caused by poorer quality services, for example, billing errors leading to a higher rate of customers contacting energy suppliers.
53. Finally, we note that the analysis of indirect costs that we have undertaken is necessarily approximate, given the limited number of firms and years in our comparator set. However, we have observed very large and persistent differences in these firms' costs to serve. In a well-functioning market, we would expect such differences to reduce over time as firms improve their performance (or exit the industry if they are unable to do so). We have not, as E.ON submitted, assumed that all cost differences are the result of inefficiency but rather, by using the lower quartile benchmark as our base case estimate, allowed for some differences in costs arising from other, unidentified factors.