CMA ENERGY MARKET INVESTIGATION

SCOTTISHPOWER’S RESPONSE TO THE ISSUES STATEMENT

1. INTRODUCTION AND EXECUTIVE SUMMARY

1.1 ScottishPower welcomes the opportunity to respond to the Competition and Markets Authority (CMA)’s Statement of Issues dated 24 July 2014 (Issues Statement) in the CMA’s investigation into the supply and acquisition of energy in Great Britain (GB) (Market Investigation). ScottishPower believes that the thorough, rigorous and authoritative review of the state of competition in GB energy markets afforded by the Market Investigation provides a valuable opportunity to restore consumer and investor confidence in the sector, and looks forward to assisting the CMA over the coming months.

1.2 In this response, ScottishPower sets out its initial views on the various potential theories of harm identified by the CMA in the Issues Statement, along with some brief comments on the scope of the Market Investigation. ScottishPower will wish to develop (including, as appropriate, with quantitative and qualitative evidence) and expand upon these and other points as the Market Investigation progresses. Before addressing each of the theories of harm in detail, this response provides an overview of the functioning of energy wholesale markets, as ScottishPower believes that certain assumptions underlying the potential theories of harm set out in the Issues Statement may rest on an incomplete understanding of this area. ScottishPower recognises that, at this early stage of the Market Investigation, the CMA’s theories of harm are solely hypotheses to be tested and do not imply prejudgment of an adverse effect on competition. It also recognises that the CMA’s views are likely to evolve as the Market Investigation progresses. In commenting on the CMA’s theories of harm ScottishPower has endeavoured to offer constructive criticism where appropriate, in the hope that this will assist the development of the CMA’s thinking.

1.3 In summary, ScottishPower’s principal comments on the theories of harm set out in the Issues Statement are the following.

(a) The CMA’s first theory of harm, relating to inefficiencies in market functioning arising from alleged opaque pricing and low levels of liquidity in wholesale electricity markets, does not satisfactorily explain why the CMA considers pricing to be opaque or levels of liquidity low in these markets. ScottishPower also does not accept the CMA’s contentions as to the potential effects of these supposed market features.

(b) The CMA’s second theory of harm, positing that vertically integrated electricity companies harm non-integrated firms to the detriment of consumers through input or customer foreclosure strategies, does not appear credible. No single electricity company is likely to account for a sufficient share of generation or acquisition of electricity to have either the ability or the incentive to pursue such a strategy. The joint State of the Market Assessment published by Ofgem, the Office of Fair Trading (OFT) and the CMA on 27 March 2014 (SoTM Assessment) found no evidence of foreclosure and ScottishPower submits that it should not be difficult for the CMA now to reach the same conclusion.

(c) The CMA’s third theory of harm, that market power in generation leads to higher prices, does not provide a plausible explanation of how generators may exploit market power in a

---

1 As set out at paragraph 21 of the Issues Statement.
way that could give rise to an adverse effect on competition under section 134 of the Enterprise Act 2002 (the Act). The ability of generators to attract scarcity rents at certain times is a normal feature of the market, and such rents are if anything at present too low and/or uncertain to ensure sufficient entry to guarantee future security of supply, as recognised by the Government’s decision to introduce a ‘Capacity Mechanism’ into the GB markets. Further, Ofgem’s introduction of the Transmission Constraint Licence Condition (TCLC) ensures that generators are also unable to exercise market power through the exploitation of transmission constraints. In conclusion, there is no evidence to suggest any kind of coordinated behaviour between generators.

(d) ScottishPower does not accept the premise of the CMA’s fourth theory of harm, that energy suppliers face weak incentives to compete on price and non-price factors in retail markets. ScottishPower competes vigorously at the retail level in one of the most competitive energy markets in Europe, in which consumers are generally well aware of their ability to switch to other providers and the characteristics of which are incompatible with tacit co-ordination between suppliers. To the extent that measures can be taken to make this market more competitive still, these are likely to lie in correcting and avoiding inappropriate regulatory interventions and ScottishPower welcomes the CMA’s acknowledgement that this is a possibility it must consider.

1.4 In terms of the scope of the Market Investigation, ScottishPower notes that British Gas has the largest number of legacy customers in the energy supply sector\(^2\) and that gas accounts for approximately 65% of consumers’ bills. Evidence also suggests that retail profitability in gas is higher than for electricity.\(^3\) To the extent that the CMA wishes to consider the impact of legacy customers on suppliers’ incentives, ScottishPower believes the CMA should focus more on legacy gas than legacy electricity customers and, in assessing retail profitability, should also consider whether the same level of transparency may be desirable in wholesale gas transfer pricing as currently applies (or is being sought by Ofgem) in electricity. In addition, ScottishPower agrees with the CMA that the mechanisms in place for regulating the revenue from the natural monopoly elements of the electricity system (transmission and distribution) should not form part of the CMA’s assessment in the Market Investigation.\(^4\)

2. OVERVIEW OF PARTICIPATION IN WHOLESALE ENERGY MARKETS

2.1 The first three of the CMA’s theories of harm relate to different aspects of wholesale energy markets and the conduct of vertically integrated companies on these markets. As a preliminary observation, ScottishPower believes that these theories of harm may rest on an incorrect assumption that vertically integrated firms have only limited need to engage with wholesale energy markets or are in some way immune from the consequences of making poor decisions in those markets. In fact, ScottishPower relies heavily upon trading in wholesale energy markets and upon undertaking that trading in accordance with well-designed and effective strategies.

\(^{(a)}\) Efficient generation and supply operations require extensive engagement in wholesale energy markets

2.2 There are wide variations in the mix of retail customer bases and generation/upstream portfolios between the six largest, vertically integrated, energy companies (as discussed in more detail below). As a result, different companies have very different needs with regard to buying and selling energy in wholesale markets. In particular, some companies will typically have an excess of power generation relative to their customer demand and will be net sellers of power, while others will face a shortage of power generation relative to their customer demand. In addition, some companies have

---

\(^2\) As a result of inheriting the former monopoly national gas customer base under the Gas Act 1995.

\(^3\) As noted in the submission by DECC (the Rt Hon Edward Davey MP, Secretary of State) to the CMA of 21 July 2014, at paragraph 3.

\(^4\) At paragraph 65 of the Issues Statement.
upstream gas activities and are vertically integrated in gas as well as electricity, while others rely entirely on purchases in wholesale gas markets and long-term gas contracts to meet the needs of their retail gas customers. The range of different electricity positions is illustrated in Figure 1 below (reproduced from Figure 41 of the SoTM Assessment), and also Figures 42 and 43 of the SoTM Assessment.

**Figure 1: Aggregate balance between GB electricity demand and supply for the six largest energy supply companies for 2012 (TWh) (reproduced from Figure 41 of the SoTM Assessment)**

![Figure 1](image_url)

*Source: Consolidated Segmental Statements, Datamonitor*

2.3 In addition to differences in relation to the net electricity balance between customer demand and generation, important differences also exist as to the types of generation in companies’ portfolios. For example, some companies have predominantly low variable cost generation such as nuclear, which is almost always economic to operate as long as it is physically available but may not be able to change its output in response to changes in market conditions. Wind energy is another example of this type, where there is essentially a negative variable cost (because subsidies are paid per megawatt-hour (MWh) generated) and the predominant factor in the plant’s availability (i.e. wind) is outside the generator’s control. In contrast, other companies have more flexible, high variable cost, generation that can respond to changes in market conditions but may be uneconomic to operate at certain times, depending on the relative prices of input fuels and electricity. Differences between competitors’ customer bases also lead to variations in the ‘shape’ of total customer demand.⁵

2.4 As a result of these factors, ScottishPower is highly reliant on wholesale electricity and gas markets both to meet its customers’ demand and to operate its generation plant efficiently, taking account of the complex and different characteristics of each power plant. In particular, where the volume and

---

For example, business customers could be expected to have a relatively even level of demand through a working day and very low demand at weekends; process industries may have a broadly flat level of demand every day of the year (except for maintenance outages); and domestic customers will generally experience sharp demand peaks in the morning and in the evening, with a more even demand level at weekends. Moreover, domestic gas demand is driven by the heating load, which is highly seasonal (as is commercial space heating), while process industries may have a gas load profile similar to electricity.
shape of supply required by ScottishPower’s retail business can be obtained more cheaply in the 
wholesale markets than it can be delivered by ScottishPower’s own generation plants (taking into 
account any availability and start/stop constraints). ScottishPower will buy externally on the 
wholesale markets rather than schedule production by its own plants. Accordingly, ScottishPower 
operates the generation and retail parts of its business separately against wholesale market prices, 
providing an objective basis for these ‘make or buy’ decisions so as to optimise both its retail and 
generation activities.

2.5 ScottishPower believes that the factors requiring it to adopt this approach will also apply to other 
vertically integrated energy companies, as reflected in their participation in trading on the wholesale 
energy markets.

(b) Use of wholesale markets for risk management

2.6 A further reason why ScottishPower engages with wholesale energy markets is the need to manage 
and mitigate risks on both the generation and retail sides of its business. These risks arise 
predominantly because of: (a) the volatile nature of the prices of the principal fuels (coal and gas) 
used to generate power in the UK and the cost to ScottishPower (including tax) of making carbon 
emissions; and (b) variations in the supply/demand balance for gas or power which can cause higher 
cost sources to be brought into use. In the case of electricity generation, the input volatility affects 
the costs of running a plant; in the case of gas or electricity supply, wholesale costs will be affected 
by supply/demand factors as well as the underlying gas or generation costs. ScottishPower engages 
with these markets in order to manage this volatility, but to do so effectively requires a careful 
consideration of the relevant risks.

2.7 On the generation side the volatility manifests itself as an uncertainty in spreads. Power plants 
try to mitigate this by selling forward a proportion of generation to lock in spreads and adjusting 
their position through further trades as market prices change through time. The key risks include: (i) 
the possibility that fuel prices or spreads are fixed, through hedging, at unfavourable levels; and (ii) 
operational difficulties leaving ScottishPower unable to fulfill forward sales of generation from its 
own plants. ScottishPower trades actively on the external markets at all stages, including in the 
wholesale spot markets at the time of delivery, if (for example) more power than expected can be 
profitably generated, it is more profitable to sell the fuel (or store it in the case of coal) rather than 
burn it, or if a plant is not available as intended. It is only in the minority of cases (CONFIDENTIAL) of gross traded volumes in 2013 where ScottishPower’s retail business 
happens to come to the market at the same time as the generation business that an internal trade is 
executed, at external market prices, in order to save costs.

2.8 If ScottishPower does not purchase the fuel and carbon permits it needs effectively, it will not be 
competitive against other generators using similar technologies. Competition incentivises 
generators, whether vertically integrated or not, to make the best possible purchases which will 
ultimately benefit consumers. Similarly, if ScottishPower sells more energy ahead in the wholesale 
market than it can generate on the day, then it is exposed to the risk of having to buy back the excess 
at a loss. This incentivises ScottishPower (and other generators) to understand their plants well and 
to be knowledgeable about performance issues. However, in generation an important risk mitigation 
is that a generator can (subject to any start/stop constraints) use the wholesale market to fulfil its 
obligations and switch off at any point in any day where the spread does not justify running the 
plant.

2.9 On the retail side, this option is not available and a supplier must keep supplying gas or electricity to 
domestic and micro-business customers even if the price does not cover the costs in that half hour (or

---

6 The spread is the difference between the wholesale price of electricity and the cost of fuel needed to produce that electricity (including the 
cost of any carbon permits or taxes that must be surrendered or paid).
7 Principally broker fees or exchange costs.
day for gas). Given that pricing to domestic customers on the basis of half hourly or daily spot prices is not currently feasible and its acceptability to consumers is at best untested, ScottishPower (as it would expect other integrated and non-integrated suppliers to do) seeks to manage this risk by using the wholesale energy markets to purchase energy in advance, based on the products available that best reflect the shape of anticipated demand, so that there is a known cost to take into account (along with competitive factors) in setting prices. As the time of delivery approaches, ScottishPower fine tunes its requirements by buying and selling energy in the markets so that it has the right amount for its customers, taking account of weather forecasts and other indicators of variation from earlier plans.

2.10 Purchasing energy on behalf of customers in this way is an important part of a supplier’s business. Done well, it can benefit both the supplier concerned and, through the operation of competition, end customers. Conversely, poor advance energy purchasing can leave a supplier exposed to significant losses as customers have in general no obligation to stick with a supplier that made a poor advance purchasing decision. Even where domestic customers enter into fixed price deals with termination fees, these fees can often be avoided by customers and it would be difficult in a competitive market to set the termination fee at a level that fully covers the risk for a very long-term contract. Access to the wholesale markets is therefore necessary to undertake and fine tune these purchasing decisions, but does not enable a supplier to avoid the consequences of poor purchasing.

2.11 The key purchasing risks for suppliers include: (i) buying too little energy in advance, leaving the supplier exposed if wholesale energy prices rise (i.e. being short); (ii) buying energy too far in advance and/or in excessive quantities, leaving the supplier over-provided with more expensive energy if near-term wholesale prices fall (i.e. being long); and (iii) variations in demand leaving the supplier with more or less energy than expected. There is also a feedback risk, whereby a supplier that is too long, and therefore seeking to set higher than average sales prices to mitigate its losses, is unable to be competitive and therefore loses market share, making it longer still.

2.12 For customers on fixed price tariffs, [CONFIDENTIAL]. This is a natural approach to minimising risk which may well also be followed by other suppliers, whether or not they are integrated. Very long-term fixed price products are also exposed to changes in Government obligations and other taxes. Conversely, for the majority of customers on floating ‘standard’ contracts, the hedging process is more subjective and designing a strategy involves making judgments about how the market is likely to evolve and an assessment of the competitive aspects of different possible approaches.

2.13 These considerations (together with strong customer and regulatory pressure to pass on wholesale price falls quickly) emphasise the dangers of being too long in the market. Accordingly, there are strong risk management reasons not to purchase large amounts of power at fixed prices too far in advance and, assuming that other suppliers share this analysis, this factor may explain the lack of buyers for fixed price power more than around two to three years ahead of delivery. ScottishPower is aware that a number of independent generators would ideally like to make long-term sales of the type mentioned, but it is unclear why a supplier would want to enter into such a contract. This issue may also be relevant to the CMA’s consideration of levels of liquidity in the relevant markets.

2.14 It is also important to note that some of the benefits of companies competing to find the most appropriate hedging strategies will be lost if there is too much transparency between rivals’ hedging strategies as this gives companies an opportunity to mitigate risk by simply matching the consensus view. For this reason, ScottishPower believes that interventions such as the use of a typical published strategy in Ofgem’s Supply Market Indicators, and the political pressure publicly to justify pricing against wholesale price movements, may be counterproductive.

---

8 These may result from the weather, external economic shocks, customer switching or forecasting error.
9 This risk is asymmetric; a supplier that is short and raises prices to mitigate losses will not have the problem exacerbated if customer numbers fall.
2.15 The result of ScottishPower (and other energy companies) using the wholesale markets to adjust their energy positions over time is to generate market liquidity and churn, since the same underlying energy can be traded in the wholesale markets several times over.\(^\text{10}\)

3. THE CMA’S THEORIES OF HARM

Theory of harm 1: opaque prices and low levels of liquidity in wholesale electricity markets create barriers to entry in retail and generation, perverse incentives for generators and/or other inefficiencies in market functioning

3.1 The CMA’s first theory of harm raises a number of different possible market features that it considers might give rise to an adverse effect on competition. At this stage, ScottishPower does not comment on each of these exhaustively, but sets out some high-level observations that it submits should be taken into account by the CMA in its assessment of competition in this area.

3.2 It is important that the CMA should identify specifically which areas of the wholesale electricity markets it considers may potentially suffer from inadequate levels of liquidity. This will be relevant both to the potential magnitude of any concerns identified for the competitive functioning of supply and generation markets and also to the plausibility of those concerns. The Issues Statement also refers at paragraph 29 to “poor-quality spot price signals” as a possible contributor to an adverse effect on competition. However, the number of different parties submitting bids and offers into day ahead exchanges is sufficient to ensure that a robust market reference price is produced which accurately reflects the balance of supply and demand for wholesale electricity and the description of the price signals as “poor-quality” is not supported by the available evidence.\(^\text{11}\)

3.3 In ScottishPower’s view, the three key elements required to ensure that wholesale electricity markets adequately support competitive supply and generation markets are: (a) availability of products that support hedging; (b) robust reference prices along the curve; and (c) an effective near-term market.

3.4 All these elements were examined in depth by Ofgem during the course of its consultation on the Secure and Promote licence condition, and Ofgem’s findings do not suggest any evidence of factors that could be said to give rise to an adverse effect on competition. Indeed, in relation to near-term and spot markets, Ofgem noted that there had been strong growth in volumes traded on the two day ahead auctions (see Figure 2 below, reproduced from Ofgem’s Final proposals for a “Secure and Promote” licence condition) and that most market participants had consistently told Ofgem that the near-term market met their needs\(^\text{12}\). Overall, Ofgem did not consider that any regulatory intervention was required to support or improve liquidity in near-term markets, noting that market coupling under the European Target Model could be expected further to improve liquidity.\(^\text{13}\) In addition, the

---

\(^\text{10}\) For example, the generation output from a plant could be sold a year ahead, then bought back six months later if the markets indicated that it would no longer be profitable to run that plant at that time, and then finally sold again in the day ahead market if conditions changed again.

\(^\text{11}\) Day ahead auction prices are calculated by the exchange using an equilibrium clearing price of bids and offers submitted by both physical and non-physical market participants. As of 6 August 2014 the N2EX exchange reported that it had 44 members qualifying to participate in its physical market, some of whom may be transacting on behalf of multiple further parties. This ensures that the auction price is not set only by bid and offer prices received from the generation businesses of the major vertically integrated businesses. Furthermore, the clearing price is set using implicit bids and offers available from adjacent markets which are directly interconnected to the GB market (France, Netherlands & Ireland) through the North West European (NWE) market coupling algorithm and its interaction with adjacent coupled markets (CWE, SW, Nordic & Baltic countries).


\(^\text{13}\) Ibid., at paragraphs 5.4-5.5. The “European Target Model”, set out in the Framework Guidelines on Capacity Allocation and Congestion Management for Electricity published by ACER in July 2011 (available http://www.acer.europa.eu/Electricity/PG_and_network_codes/Electricity%20FG%20network%20codes/PG-2011-E-002.pdf) sets out a vision for a single European energy market in electricity by 2014 through ‘market coupling’ (see paragraph 1.7 of Ofgem’s final proposals). Market coupling refers to the simultaneous determination of market prices and volumes across two or more electricity markets or power exchanges. This involves the use of implicit auctions where both electricity and interconnection capacity are traded jointly,
Department of Energy and Climate Change (DECC) has concluded that day ahead liquidity is sufficiently high for this market to be used in setting the reference price for intermittent low-carbon generation contracts for differences (CfDs), further evidence that levels of liquidity cannot be said plausibly to be a feature of this market that prevents, restricts or distorts competition.

**Figure 2: Day ahead Auction Trading (N2EX and APX), reproduced from Figure 16 of Ofgem’s Final proposals for a ‘Secure and Promote’ licence condition**

Source: N2EX, APX

3.5 ScottishPower notes that concerns expressed by Ofgem over supposedly low levels of liquidity applied primarily to longer-dated and peak products, and this appears to have been the main rationale for the imposition of market-making obligations on vertically integrated suppliers. However, while ScottishPower questioned at the time whether the evidence for such concerns even in relation to these products was sufficient to justify market-making obligations (especially on a relatively small participant such as itself), these obligations are now in place and are contributing to a significant increase in liquidity for longer-dated and peak products.

3.6 In addition, while the CMA specifically identifies potential opacity of prices as a feature of the market which may contribute to an adverse effect of competition through a reduction in liquidity, it is unclear to ScottishPower how wholesale power prices could be thought to be opaque in light of the fact that the cleared auction day ahead prices and those arising from the mandatory market-making obligation are fully transparent (as are other exchange trades). To the extent that the CMA has thereby allowing a larger number of potentially more diverse market participants to trade with each other without having to procure separately the necessary transmission or interconnection capacity. As noted by Ofgem, market coupling means that the GB spot price (i.e., day ahead price) will be calculated at the same time and through the same process as prices in neighbouring markets.

---


15 For example, as set out in Ofgem’s submission to the CMA dated 21 July 2014, at paragraph 2.67.

16 See Ofgem, Wholesale power market liquidity: final proposals for a “Secure and Promote” licence condition, 12 June 2013 (available at https://www.ofgem.gov.uk/ofgem-publications/39302/liquidity-final-proposals-120613.pdf), at paragraph 1.8 and Figure 1.
concerns about accessibility of pricing information relating to bilateral trades, ScottishPower notes that such information is available via the proprietary Trayport system (discussed further below).

3.7 As such, to the extent that there have been any problems with liquidity in wholesale markets, these have either already been or are likely to be alleviated by recent market developments on day ahead products and Ofgem’s introduction of the Secure and Promote licence obligation. In particular, the Supplier Market Access (SMA) rules will enhance the ability of small suppliers to access hedging products on reasonable terms, and the mandatory market-making obligations will ensure that a range of hedging products are available within defined limits on the bid-offer spread.17

(b) Potential causes of any hypothetical lack of liquidity

3.8 The Issues Statement suggests two alternative or complementary hypotheses as to the causes of any shortfalls in liquidity: (a) market rules (hypothesis 1a); and (b) vertical integration (hypothesis 1b). The Issues Statement does not spell out in detail how market rules may have contributed to poor liquidity, but suggests that this relates to the prevalence of bilateral contracting, with “low volumes of wholesale trading going through cleared, transparent markets.”18

3.9 The day ahead market operates on a cleared auction platform upon which very large volumes are traded. This is a good solution for day ahead trading as the collateral requirements are minimal. Collateral requirements are greater for longer-dated products, as exchanges seek collateral to guarantee delivery for the entire term of the contract, in the event of a price movement. Small suppliers may therefore prefer to contract bilaterally, as larger companies tend to manage credit risk through a credit limit rather than requiring exchange-type collateral. To the extent that it is considered desirable to encourage small suppliers to use exchanges, one possibility would be to explore whether exchanges are actually collecting more collateral than they need.

3.10 That said, it is not clear that bilateral contracting reduces liquidity. The Issues Statement appears to assume that bilateral trades reduce transparency, but in practice this should not be the case. The vast majority of UK forward power trades are conducted through the Trayport platform, and details of all trades executed on the platform (excluding counterparty information) are made commercially available via Trayport screens, which are widely used, not just by suppliers, generators and traders, but also by large end users who monitor market prices.19

3.11 Even under a pool structure, companies would still need to trade forward products for hedging purposes. ScottishPower considers that some would continue to have a preference for bilateral contracting for the same reasons as they do under the existing market rules.20

3.12 The second limb of the CMA’s first theory of harm suggests that vertically integrated companies may be a cause of the postulated poor liquidity. This argument seems to be based on an assumption that such companies do not need access to wholesale markets, which, for the reasons set out in detail in section 2 above, is not correct. This assumption also begs the question of whether there is a shortfall in liquidity in the first place. There is strong evidence to show that in relation to this issue, vertically integrated companies have been ‘part of the solution’ rather than ‘part of the problem’. In particular, such companies have been the main drivers behind the huge (at least ten-fold) increase in cleared exchange day ahead trading and are now, as a result of the market-making obligation,

---

18 At paragraph 29.
19 [CONFIDENTIAL].
20 In addition, Ofgem is progressing rule changes to electricity cash-out (i.e. the rules for the payments made when a participant is not balanced at the point of delivery). These will in particular remove the current ‘dual cash-out’ system so that pricing is symmetrical whether the participant is long or short, making imprecision in balancing less costly. However, Ofgem is also making cash-out prices sharper, magnifying the risk of very high prices for companies that are short at the time of delivery in order to encourage suppliers to signal the value of security of supply into the traded market. Ofgem considers this to be necessary for security of supply.
providing effective markets for a variety of products along the curve. Moreover, ScottishPower notes that under the SMA rules, vertically integrated companies (and a few others) are obliged to provide smaller suppliers with access to hedging products on reasonable terms.

3.13 Finally, ScottishPower notes that any lack of suitable financial hedging products may have more to do with understanding the constraints which may be imposed by European Union (EU) financial regulations such as the European Market Infrastructure Regulation\(^\text{21}\) than the absence of robust reference prices suggested by paragraph 32 of the Issues Statement.

\(\text{(c) Impact of any liquidity shortfall}\)

3.14 Notwithstanding that ScottishPower does not accept the CMA’s contention in the Issues Statement that there is in fact a lack of liquidity in the market, ScottishPower believes that certain of the suggestions made in the Issues Statement about the potential impacts of any shortfall in liquidity are not supported by the available evidence.

3.15 Paragraph 31 of the Issues Statement suggests that vertically integrated companies have more options for balancing than independent suppliers and generators because they can satisfy balancing needs through internal trades. In fact, it is unlikely that this represents a meaningful competitive advantage, since it will seldom be commercially viable for a vertically integrated firm to use its own generation capacity to balance the demand of its supply arm (as discussed in detail at section 2 above). Where generation capacity is or was expected to be ‘in the money’, it will already have been sold on the wholesale market; where it is ‘out of the money’, it would be cheaper to buy the necessary power on the wholesale market.

3.16 Paragraph 32 of the Issues Statement suggests that the assumed absence of good markets for hedging instruments has a greater impact on the costs of vertically separated companies than vertically integrated ones. Leaving aside the question as to whether there is in fact a problem with hedging and what role vertically integrated companies may be playing in mitigating or exacerbating any such hypothetical problem, it is unclear why the CMA should think that the cost impact would be greater for vertically separated companies. Any flexibility that a vertically integrated company has to adjust its generation can be sold in the markets and it is not clear why it would be cheaper for a vertically integrated company to use that flexibility itself rather than sell it into the market and buy what it needs for its supply arm. The only exception is where there is a matching requirement which can be traded internally to save transaction costs. However, this seems to be a useful efficiency rather than anything which could be said to approach an adverse effect on competition.

3.17 Paragraph 33 of the Issues Statement also suggests that vertically separated firms face a barrier to entry because they have to rely on poor quality price signals in the wholesale markets, whereas vertically integrated companies have less need to base their decisions on such price signals. In reality, however, vertically integrated companies are equally exposed to price signals as compared to non-integrated companies; the production decisions of a profit-maximising generator can be expected to be driven by wholesale market prices whether the generator is integrated or not, and any strategy that does not respond to such price signals would be likely to lose money. Similarly, investment decisions will be based on expected market spreads, regardless of whether the generator is integrated or independent.

3.18 Paragraph 34 of the Issues Statement suggests that a lack of liquidity may allow market participants to move prices for perverse reasons, giving the example of renewable generators manipulating down the reference price for CfDs in order to receive larger subsidies. ScottishPower believes this is extremely unlikely given the high level of liquidity in the day ahead market, and notes further that DECC has already considered the risk of manipulation of CfD reference prices and is satisfied that

\(\text{\footnotesize\textsuperscript{21} Regulation (EC) No. 648/2012 on OTC derivatives, central counterparties and trade repositories.}\)
liquidity in the day ahead market is sufficient for day ahead market indices to provide a robust reference price.\textsuperscript{22} It is also important to note that market manipulation of this kind is in any event prohibited under the EU Regulation on Energy Market Integrity and Transparency (REMIT),\textsuperscript{23} which is enforced by Ofgem and the Agency for the Cooperation of Energy Regulators (ACER), and that DECC has announced a consultation on additional enforcement powers for these rules, including criminal penalties with possible imprisonment for up to two years in certain cases.\textsuperscript{24}

3.19 ScottishPower also submits that the hypothesis raised by the CMA in paragraph 34 of the Issues Statement cannot be supported on empirical grounds. Few CfDs that will be in operation by 2020 are held by any of the integrated companies and in any case the holder of the CfD will of course still need to sell the underlying power. So even if holders were hypothetically able to depress the market price through illegal manipulation, they would increase the subsidy payment but at the same time reduce their income from actually selling the power by a broadly equal amount. Given the losses that would be suffered on the rest of the portfolio from reducing the wholesale price, this would appear likely to be a loss-making (as well as illegal and impracticable) strategy.

\textit{(d)} \textit{The CMA must give due weight to the benefits of vertical integration}

3.20 ScottishPower welcomes the CMA’s acknowledgement at paragraph 39 of the Issues Statement that it will also consider the benefits of vertical integration in determining whether any costs associated with vertical integration give rise to an adverse effect on competition and in assessing the net impact of potential intervention to address any such effect. The fact that many companies in the UK, and many other countries, have adopted a vertically integrated business model suggests that there are indeed significant benefits to vertical integration that are robust to different market arrangements and will, in a competitive market, be passed on to consumers.

3.21 The benefits of vertical integration include the following:

(a) vertical integration as a hedge;

(b) transaction costs; and

(c) economies of scale and scope.

3.22 These benefits can be expected to be passed on to consumers through the operation of competitive retail markets. ScottishPower therefore believes that the benefits will significantly exceed the costs of vertical integration.

\textit{Vertical integration as a hedge}

3.23 Because electricity is not a storable commodity and demand for electricity is very price inelastic in the short-term, the wholesale market price of electricity tends to be very volatile in the short-term. In addition, longer term volatility of electricity prices is driven by volatility in the prices of fuels used to generate electricity, as well as changes in market fundamentals such as the generation capacity mix, which are often driven by public policy considerations. This is all part of the normal functioning of a liberalised electricity market.


3.24 As a consequence of wholesale price volatility, independent generators have high volatility of profits in the absence of long-term contracts. Likewise, independent retailers have a high volatility of profits if they are not able to pass on wholesale price volatility to their customers. Vertically integrated utilities tend to carry less risk overall because profits of generators and retailers tend to be negatively correlated. Retailers can benefit from lower wholesale prices, whereas generators can benefit from higher wholesale prices.

3.25 For independent companies, this translates either into a higher (percentage) cost of capital to compensate investors for their greater risk, or into greater holdings of risk capital, which carries a corresponding cost, that can be used as a buffer against potential losses. Under a ‘standard’ implementation of the Capital Asset Pricing Model (CAPM), investors should only require compensation for systematic risk applied to a measure of the tangible assets of a firm. However, where it is desirable for firms to hold greater amounts of risk capital to protect against the risk of bankruptcy (e.g. for ‘asset light’ companies such as independent energy retailers) the associated cost of this additional risk capital must also be remunerated (through additional profit). The implication is therefore that, for the energy industry as a whole, vertical separation would result in either a higher cost of capital than implied by the ‘standard’ implementation of the CAPM framework or a higher risk capital requirement. In each case, the additional profit required would translate into additional costs to consumers. Experience of more volatile power market conditions some years ago suggests that vertically separated companies may not always carry sufficient risk capital and that this may lead to firms failing or needing to be acquired.

Transaction costs

3.26 If internal clearing of transactions within a holding company can be done more cheaply than transactions between independent generators and retailers, transaction costs are saved. The costs for a wholesale market transaction between independent entities can include the following elements:

(a) collateral (to compensate counterparty risk);
(b) exchange or other platform participation fees; and
(c) cost of internal trading function.

Economies of scale and scope

3.27 Sharing of certain corporate functions can give rise to economies of scale and scope. While the retail, trading and generation arms of vertically integrated utilities are run as separate businesses to a large extent, certain areas of overlap such as corporate headquarters and HR can give rise to economies of scale. Economies of scope would arise from areas such as forecasting and trading, which would be useful to both the retail and generation businesses.

3.28 ScottishPower looks forward to working with the CMA in assessing these benefits in more detail as the Market Investigation progresses.

Theory of harm 2: vertically integrated electricity companies harm the competitive position of non-integrated firms to the detriment of customers, either by increasing the costs of non-integrated energy suppliers or reducing the sales of non-integrated generating companies

3.29 ScottishPower does not believe that theories of harm based around either input foreclosure (raising costs of non-integrated supplier firms) or customer foreclosure (reducing sales of non-integrated generating companies) are plausible, since ScottishPower specifically and, as far as ScottishPower is aware, vertically integrated electricity generation and supply companies generally, have neither the ability nor the incentive to pursue such strategies.
3.30 In relation to input foreclosure, the low concentration of the generation market means that no individual vertically integrated electricity company has the ability to exclude an independent supplier through an input foreclosure strategy as they lack the significant market power required to do so; an independent supplier faced with such a strategy could readily purchase its requirements from another generator. This was confirmed by the SoTM Assessment, which concluded that “from this analysis we could not exclude that some of the large vertically integrated generators have some power over price, but found no evidence that the capacity of any of them would be required to meet total demand. It is important to note that, as part of the assessment, we did not receive evidence suggesting that the six largest suppliers have withheld generation capacity to raise wholesale prices and foreclose rivals.” Furthermore, such a strategy would rely on the generator attempting to engage in input foreclosure being able to: (a) identify the independent supplier as the counterparty to a prospective trade; and then (b) refuse to trade or offer to do so only at a prohibitive price. In the case of exchange-based trading, which includes the highly liquid day ahead auctions referred to above, the counterparty’s identity would not be visible to the vertically integrated electricity company. For the mandatory market maker, Ofgem is less specific about the platform used, but clearly an obligated party is not in a position to refuse to trade if a valid request is made. And bilateral trades under the SMA rules, where the integrated company will evidently know the identity of the counterparty, are subject to reasonableness requirements which make the contemplated kind of refusal infeasible. Together, these routes should be sufficient for an entrant supplier to meet its needs.

3.31 This suggests that a vertically integrated energy business would lack the ability to attempt a foreclosure strategy. Neither would it have an incentive to do so, since this would require the generation business to turn down the opportunity of a profitable sale of power for no gain to the downstream supply business. In fact, ScottishPower has worked proactively with independent suppliers to facilitate their trading with it so as to enable them to purchase power at wholesale market prices, including in small amounts (or ‘clip sizes’) reflecting their needs. This activity resulted in 1,673 forward trades being transacted between early 2010 and 31 March 2014 with four independent suppliers, in the bespoke sizes, shapes and durations they required, at market-based prices. Trading relationships are in place with two further suppliers and eleven further such agreements are under negotiation (including with ten companies that are not registered as eligible suppliers under the SMA rules).

3.32 In practice, the rapid growth of non-integrated electricity supply companies shows that such suppliers have had no difficulty in obtaining the power that they need for their businesses, indicating that input foreclosure strategies are either not being pursued, consistent with the findings of the SoTM Assessment, or in any event are failing to have any adverse effect on competition.

3.33 Similarly, in relation to any hypothetical concerns relating to customer foreclosure, ScottishPower considers that neither it nor (as far as it is aware) any other vertically integrated electricity supply companies have the ability to exclude an independent generator through a customer foreclosure strategy given the lack of significant market power required to do so: only one firm, Centrica, has a greater than 20% share of domestic and SME electricity supply. Even disregarding the regulatory and information issues outlined above in identifying the counterparty to trades or refusing to transact, this market structure makes it highly unlikely that adverse effects on competition are arising from a strategy of customer foreclosure. Again, this is supported by the findings of the SoTM Assessment: “We considered whether independent generators might be restricted from accessing

---

25 See paragraph 274 of the Competition Commission Guidelines for Market Investigations, CC3 (Revised) (Market Investigation Guidelines, as subsequently adopted by the CMA).
26 At paragraph 5.89.
28 The SoTM Assessment noted that “The recent growth of smaller suppliers is an encouraging development”, with their combined market share standing at more than 5% in respect of both electricity and gas, an increase of over 2 percentage points over a year previously (see paragraph 1.11 and Figure 3).
electricity retailers as customers. We found no evidence for that and no concerns were raised with us regarding such customer foreclosure”.

3.34 In view of the above, ScottishPower submits that the second theory of harm set out in the Issues Statement does not provide a tenable basis on which to identify an adverse effect on competition.

**Theory of harm 3: market power in generation leads to higher prices**

3.35 The Issues Statement hypothesises three ways in which generators might exploit market power in ways that could lead to higher prices:

(a) at certain times of high demand, one or more generators may be able unilaterally to influence the price of generation in spot markets (and possibly also in forward contracts) (at paragraphs 45 and 48);

(b) at certain times, generators may be able to exploit local market power caused by transmission constraints (at paragraph 46); and

(c) generators might coordinate over the level and timing of investments, for example to curtail investment in new capacity (at paragraph 47).

3.36 For the reasons set out below, ScottishPower does not consider that any of these hypotheses constitutes a plausible basis for identifying an adverse effect on competition.

3.37 Before doing so, it may be useful to provide context by considering the spread for gas generation (the ‘spark spread’). This is generally thought to need to be around £15/MWh for baseload generation (i.e. all 8,760 hours in a year) to provide sufficient operating profits to remunerate the capital needed to build a new CCGT plant (the only type of plant that, apart from subsidised renewables, has been built in Britain since 1994). In fact, ScottishPower estimates that the average baseload spark spread since May 2005 has been in the region of £7.70/MWh in the forward market. A market can normally be expected to reach equilibrium when it is priced at the long run average cost (i.e. the cost of efficient new entry). ScottishPower submits that prices in the wholesale power market are well below the long run efficient level. Moreover, the fact that some coal plant, with much lower fuel costs (but high capital costs), may be able to earn significant inframarginal rents is not an indication of a problem with competition. In any event, ScottishPower notes that much of the coal plants’ inframarginal rents are being captured by the Treasury through the ‘carbon floor price’ tax.

(a) **Unilaterally influencing spot market (and forward contract) prices**

3.38 ScottishPower agrees with the CMA that “market shares in generation as a whole are relatively low”. Given the relatively low concentration of the GB generation market, it is therefore highly unlikely that any single generator – let alone ScottishPower which, as shown in Figure 1 above, has the lowest generation share of the six largest suppliers – would be able unilaterally to influence the price of electricity in spot markets or futures contracts for any prolonged period of time. In relation to the position at peak, it is unclear whether the concerns expressed in the Issues Statement relate to: (a) a concern that rarely used plant, called into action to maintain security of supply at peak, would be able to set high prices; or (b) a concern that generators with large fleets might withdraw some of their plant in order to set a high price for the rest.

---

29 At footnote 168.
31 The obvious solution (building new coal plants, as deployed in Germany) has been effectively prevented by the UK Government for environmental reasons (due to the prohibitive costs of the carbon capture and storage requirements that have been imposed).
32 At paragraph 45 of the Issues Statement.
3.39 In relation to the first issue, ScottishPower notes that in spot markets there may be some moments where a high cost, rarely run, generator is able to ask a relatively high price (‘scarcity rent’). But this is a necessary and unavoidable feature of the market to ensure security of supply. Consider a hypothetical 1GW plant with fixed costs of £15 million a year. Suppose that that plant is able to run for 100 of the 8,760 hours in a year. To cover its costs, it would need to charge an average of £150 per MWh over its fuel costs for each hour it runs. The fact that generators are able to extract scarcity rents is a normal feature of the market and not one that could be said to prevent, restrict or distort competition. Indeed, the insufficient level of scarcity rents or at least the lack of certainty that they will be adequate (the ‘missing money’ problem \(^{33}\)) lies behind the Government’s decision to introduce a Capacity Market to help motivate investment in new plant. It is clear from the level of the baseload spark spread (see above), that once summed over the 8,760 hours in a year, the scarcity rents currently in the GB market are not excessive.

3.40 As regards capacity withholding, ScottishPower notes that:

(a) the European Commission (the Commission) considered this issue in the context of EDF’s acquisition of British Energy in 2008 and imposed specific remedies (divestment of Eggborough coal-fired and Sutton Bridge gas-fired power stations) to ensure that EDF could not influence prices for the large nuclear fleet by withholding capacity from other stations.\(^{34}\) Given that other generators have substantially smaller market shares than EDF, and EDF’s case has already been addressed by the Commission, it seems highly unlikely that any GB generator would be able to act unilaterally in this way;

(b) a study for the Commission covering the years 2003-2005 found that the GB electricity market had dramatically fewer hours in which the company with the greatest market share was ‘pivotal’ for supply being sufficient to meet total demand, as compared to the other countries studied (Belgium, Germany, Spain, France, and the Netherlands);\(^{35}\) and

(c) ‘physical withholding’ (i.e. withholding capacity without justification and with the intention of shifting the market price to higher levels) is one of the categories of market manipulation prohibited under the EU REMIT Regulation\(^{36}\) and which may in the UK shortly be subject to criminal penalties.

(b) **Exploiting transmission constraints**

3.41 ScottishPower welcomes the CMA’s observation that in order to assess properly the hypothesis that generators may have local power at particular times created by transmission constraints it must first “understand the effects of Ofgem’s introduction of a ‘Transmission Constraint Licence Condition’ which aims to restrict any such exercise of market power.”\(^{37}\) The TCLC was introduced by DECC specifically to ensure that generators did not exploit local market power caused by transmission constraints (though no formal finding of market power is required in order for the TCLC to be triggered).\(^{38}\) In particular, the TCLC prohibits two types of conduct:

\(^{33}\) The ‘missing money problem’ is associated with electricity prices not being high enough or price spikes occurring too rarely to recover the full costs of existing or new power plants.

\(^{34}\) Case No. COMP/M.5225 EDF / British Energy (available at [http://ec.europa.eu/competition/mergers/cases/cases/m5224_20081222_20212_en.pdf](http://ec.europa.eu/competition/mergers/cases/cases/m5224_20081222_20212_en.pdf)), at paragraphs 154 to 155.


\(^{37}\) At paragraph 46 of the Issues Statement.

where a generator creates or exacerbates a transmission constraint by deciding to generate or not to generate with a particular plant when it had more economic options available to it, and then seeks to charge or charges an excessive price for reducing or increasing generation in the Balancing Mechanism, from its notified position; and

(b) where a generator exploits a period of export transmission constraint by paying or seeking to pay excessively low amounts to reduce its generation.

3.42 Ofgem has monitored compliance with the TCLC since it was introduced in 2012 and has not, as far as ScottishPower is aware, identified any material non-compliance. The TCLC does not restrict plants from charging a high price for increasing generation where they have not caused or exacerbated the constraint; this exclusion is necessary to ensure security of supply (for example by encouraging new plant construction) in constrained areas with insufficient (as opposed to too much) generation.

(c) Coordinated curtailing of investment (and coordination of pricing)

3.43 ScottishPower submits that there is no evidence to suggest any kind of coordinated behaviour among generators in relation to prices or level and timing of investments. Although there is rightly current concern about the lack of short- and medium-term investment in new generation capacity in GB, this can be explained by the insufficient levels of return on investment (past, current and forward) in wholesale generation markets. Indeed, recognition of these inadequate returns for investment and the associated ‘missing money problem’ lay behind the Government’s decision39 to reintroduce a ‘Capacity Mechanism’ into the GB markets40 as well as Ofgem’s reforms to the system of electricity imbalance pricing, or ‘cash out’ arrangements.

3.44 Further, the low levels of current and forward wholesale prices suggest that coordinated (or indeed unilateral) curtailing of otherwise economic investment is unlikely to have taken place. In any event, it seems unlikely that the conditions for coordinated behaviour to emerge in this market would be satisfied. In particular:

(a) over the longer term there are a large number of companies looking to invest in new capacity in GB, as is evident from the number of companies holding section 36 consents.41 This suggests that any coordination is unlikely to be sustainable;

(b) the current low levels of market concentration, the broad mix of generation types, as well as the uncertainty in the evolution of the generation mix in the medium- to long-term suggests that coordinating on a focal investment strategy that is beneficial to all coordinating firms is unlikely; and

(c) it is unclear how an effective punishment mechanism could be achieved.

3.45 For completeness, ScottishPower considers that coordination of pricing in generation is extremely unlikely, given the relatively low level of market concentration.


40 Although there is currently no capacity market in GB, the privatised GB electricity market has had capacity rewards for most of its history. A capacity payment existed in the Electricity Pool from April 1990 until NETA started in March 2001. The free carbon allowances for generation that existed in the EU Emission Trading System (EUETS) from January 2005 until the end of 2012 have also acted as a direct reward for and incentive to provide generation capacity. This is the case as generating units will price the cost of emitting carbon in their production. In doing so, they recognise the opportunity cost of selling free allowances in the EUETS market. In spite of EUETS outturn prices proving to be very weak, the forecasts of stronger carbon market prices supported investments in the past.

Theory of harm 4: energy suppliers face weak incentives to compete on price and non-price factors in retail markets, due in particular to inactive customers, supplier behaviour and/or regulatory interventions

(a) Hypothesis 4a: inactive customers reduce the incentives of energy suppliers to compete

3.46 It is a feature of many competitive markets that consumers who shop around are able to get a better deal than those who do not, so a key question, as highlighted in this hypothesis, is whether there are customers in the GB electricity and gas markets who are sufficiently ‘inactive’ so as to reduce suppliers’ incentives to compete in a way that prevents, restricts or distorts competition. For the reasons set out below, ScottishPower submits that the available evidence clearly shows that this is not the case.

3.47 Levels of switching and consumer engagement in GB energy markets compare favourably with other European retail energy markets. This is illustrated in Figure 3 below, which considers switching rates internationally. It is shown that, on this basis, GB has a higher switching rate than any other market in Europe for which data has been identified, and only slightly lower than that found in Australia and New Zealand. Figure 4 shows the equivalent comparison for gas retail markets where the situation is broadly similar, with GB having the third highest switching rate in Europe, and a slightly lower switching rate than Australia.

Figure 3: UK electricity retail switching rates with international comparators (number of customers who switched supplier in a one year period, 2010-2012)\(^{42}\)

Source for European countries is ACER (2012), Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2011, which captures percentage of customers who switched supplier by number of eligible meter points in 2011. The date in brackets for each country represents the year in which retail competition began. Australia results are the simple average for Victoria, New South Wales and South Australia and are sourced from Australian Energy Market Commission (2013), Review of Competition in the Retail Electricity and Natural Gas Markets in New South Wales and represent the percentage of total customer who switched retailer in 2012. New Zealand data for electricity from the New Zealand Energy Authority (2011), Save Money by Switching Electricity Retailer (available at http://www.nzpam.govt.nz/cms/pdf-library/folder.2007-05-17.4547411750/Switching2010.pdf) and represents the percentage of total customers who switched retailer in 2010. New Zealand data could not be identified in the gas market. Results exclude Northern Ireland and regimes granted derogation from energy market liberalisation.
3.48 Energy market switching rates also compare favourably to those in other sectors of the UK economy. Results of a cross sectional comparison are shown in Figure 5 below. This shows that switching rates in energy are similar to those in fixed-line telecoms and internet provision. Switching rates in energy are also found to be higher than non-insurance financial products.43

Figure 5: UK energy retail switching rates compared with other sectors of UK economy (one year switching rate 2012)44

ScottishPower notes that vehicle insurance represents a high outlier and this is likely to be a result of features particular to this market such as the legal need to renew annually and high price dispersion relating to the target risk profiles of individual insurance providers.

Source is the EU Consumer Market Monitoring Survey (2010) and relates to 2012 UK data. Percentage is the proportion of respondents answering ‘Yes – supplier’ to the question ‘Have you switched tariff plan or supplier in the past period?’ (available at http://ec.europa.eu/consumers/archive/consumer_research/dashboard_part3_en.htm). ‘Investment products’ includes personal pensions and ‘Commercial Sport Services’ are defined as membership products such as gyms or sports clubs.
3.49 Other indicators of energy market competition compiled by the Commission (amongst others) also show that the UK has the one of most competitive energy markets in Europe.\footnote{See for example BERR reports on competitiveness (2009) (available at http://webarchive.nationalarchives.gov.uk/20090224215852/berr.gov.uk/whatswedo/energy/markets/competitiveness/page28432.html) or Ernst and Young (2012), Powering the UK (available at http://www.energy-uk.org.uk/publication/finish/5-research-and-reports/298-powering-the-uk-ernst-a-young-report-on-the-role-of-the-power-and-gas-sector-in-the-wider-economy.html), at section 4.} Indeed, wholesale and retail energy prices in the UK are some of the lowest in Europe, and UK energy costs as a proportion of disposable income are also among the lowest in Europe.\footnote{See Commission (2014), Energy prices and costs report (available at http://ec.europa.eu/energy/doc/2030/20140122_swd_prices.pdf), at Figure 79.} This suggests that GB energy consumers on the whole do engage effectively with the market and that prices are at a competitive level.

3.50 While Ofgem noted in a recently-published report that many consumers were “unengaged”, it equally found that “most consumers are aware they can switch supplier or change tariff with their existing supplier. Around 14% of consumers switched supplier over the last 12 months, and 16% changed tariff without changing supplier. The main reasons for comparing suppliers or tariffs is to save money, and such activity is mainly triggered by supplier communications. Most of those who switched found it relatively easy to decide which tariff to switch to”\footnote{Ofgem, Domestic Retail Market Review – Evaluation framework and baseline results, published on 31 July 2014 (available at https://www.ofgem.gov.uk/ofgem-publications/89112/opendelitedomesticretailmarketreviewevaluationframeworkandbaselinereultsfinal.pdf). In particular, see section 3 of the Annex.}.

3.51 The fact that some ‘sticky’ customers may pay more than active customers can be understood in economic theory as a form of behaviour-based price discrimination, where customers differentiate themselves by their differing willingness to shop around. Such discrimination can have beneficial market effects, as it encourages competition for active customers and gives an incentive for firms to implement strategies to make the sticky customers of their rivals switch to them. It is also necessary for there to be an incentive for customers to shop around: if inert customers gained an equally good deal as active ones, engagement with the market would be likely to fall dramatically. A degree of price dispersion is likely to have a catalytic effect in encouraging competition and is not generally considered to be harmful. ScottishPower’s special offer tariffs are also available to its existing customers.

3.52 Although ScottishPower notes Ofgem’s concerns about distributional implications of price dispersion between customers, it believes that much more careful analysis is required before it can be concluded that inactivity by some consumers constitutes a feature of GB energy markets that prevents, restricts or distorts competition. For competition to function effectively, consumers need to have sufficient financial incentive to switch, and suppliers need the means to compete for the business of their rivals’ customers. In contrast, regulatory interventions such as the prohibition on undue discrimination (intended to reduce discrimination between ‘in area’ and ‘out of area’ consumers) and the measures taken pursuant to Ofgem’s Retail Market Review (RMR) intended to simplify tariff structures may have had the unintended consequence of increasing the overall level of prices paid by energy consumers. ScottishPower notes that the CMA intends to consider the impact of such regulatory interventions under hypothesis 4c; as discussed in more detail below, any such assessment must include whether relaxing regulatory constraints could facilitate more vigorous price competition.\footnote{In particular, the RMR measures intended to simplify tariff structures to limit suppliers’ ability to offer straightforward discounts and eye-catching offers designed to overcome consumer inertia.} It is also possible that the requirements as to the way in which doorstep selling was conducted by energy suppliers, which led to that practice being abandoned by suppliers, may have made it harder to reach some of the ‘sticky’ customers who are less likely to engage on internet or telephone sales.

3.53 ScottishPower is not aware of any evidence of discrimination between ‘in area’ and ‘out of area’ electricity consumers (and notes in particular that no such evidence was presented in the SoTM
Assessment). The main form of discrimination is between active and inactive customers, regardless of their location, so it is unclear whether the ‘differing regional positions’ of the former electricity incumbents\textsuperscript{49} will have a significant bearing on this hypothesis. Indeed, British Gas, which has no regional bias to its legacy customer base, has the largest number of legacy customers (probably as many as the other suppliers combined) as a result of inheriting the former monopoly national gas customer base under the Gas Act 1995.\textsuperscript{50} Gas accounts for approximately 65% of consumers’ bills and there is evidence that retail profitability in gas is higher than for electricity.\textsuperscript{51} To the extent that the CMA wishes to consider the impact of legacy customers on suppliers’ incentives, ScottishPower believes the CMA should focus more on legacy gas than legacy electricity customers. Given that assessments of retail profitability may be influenced by transfer pricing policies, the CMA should also consider whether the same level of transparency may be desirable in wholesale gas transfer pricing as currently applies (or is being sought by Ofgem) in electricity.

\textbf{(b) Hypothesis 4b: tacit coordination between energy suppliers reduces their incentives to compete}

3.54 At paragraph 54 of the Issues Statement, the CMA notes that the SoTM Assessment identified certain characteristics of the markets for the retail supply of gas and electricity that may be conducive to coordinated behaviour and that aspects of the behaviour of the six largest suppliers (such as similarities in the timings of price announcements and in margins) appear to be consistent with tacit coordination. The Issues Statement indicates that the CMA will consider, in particular, two possibilities in this respect: (a) that the pre-announcement of price increases may facilitate tacit coordination on prices; and (b) that vertical integration in the supply of gas and electricity may facilitate market sharing. However, while certain regulatory interventions in the gas and electricity retail markets have resulted in increased price transparency, for the reasons set out below ScottishPower submits that the structural features of the GB energy markets are not conducive to the establishment or sustainability of tacit coordination.

3.55 The Market Investigation Guidelines state that three conditions are necessary for coordination to be sustainable in a market:\textsuperscript{52}

\begin{itemize}
  \item[(a)] firms need to be able to reach an understanding and monitor the terms of coordination. Where there is no explicit agreement, firms need to have sufficient awareness of each other and be able to anticipate each other’s reactions so as to identify a mutually beneficial outcome;
  \item[(b)] coordination needs to be internally sustainable among the coordinating group, i.e. firms have to find it in their individual interests to adhere to the coordinated outcome; the firms must lack an incentive, or have a positive disincentive, to compete because they appreciate how each other will react; and
  \item[(c)] coordination also needs to be externally sustainable, in that coordination is unlikely to be undermined by competition from outside the coordinating group or from the reactions of customers.
\end{itemize}

3.56 ScottishPower recognises that the requirement to provide at least 30 days’ advance notice of price increases, imposed by Ofgem in April 2011 in the amended Standard Licence Condition (SLC) 23, increases transparency of energy retail prices. The provisions of SLC 25 concerning marketing, which require suppliers to provide detailed comparative quotations against a customer’s current deal, also mean that suppliers need to be aware of their competitors’ pricing on a very granular level. This

\textsuperscript{\textit{49}} Referred to at paragraph 51 of the Issues Statement.
\textsuperscript{\textit{50}} The number of single fuel gas and single fuel electricity customers provide an indication of the number of legacy customers of British Gas and former electricity incumbents respectively. Figures 18 and 19 of the SoTM Assessment show that the percentage of such customers is 28% in each case.
\textsuperscript{\textit{51}} As noted in the submission by DECC (the Rt Hon Edward Davey MP, Secretary of State) to the CMA of 21 July 2014, at paragraph 3.
\textsuperscript{\textit{52}} At paragraph 250.
price transparency is also enhanced by other more recent regulatory obligations imposed by Ofgem as part of the RMR whereby suppliers are limited to a maximum of four different tariffs at any given point in time. However, while transparency is a necessary condition for coordination, there can also be competitive benefits of transparency, such as assisting smaller suppliers in entering and expanding their presence in the market. Ascertaining where the balance lies can be complex.

3.57 Further, while the relevant underlying product (supply of electricity and gas) is largely homogeneous, the unpredictable nature of demand,\(^{53}\) coupled with very significant political and regulatory risks which are impossible to hedge against, is not consistent with the “non-complex and stable economic environment”\(^{54}\) referred to in the Market Investigation Guidelines as being required to maintain the internal stability of a coordinated outcome. Additionally, differentiation in services related to retail energy, such as customer service levels or complaints handling, introduces an element of heterogeneity in this market which is not compatible with maintaining a coordinated outcome.

3.58 Additionally, it is not clear how any tacit coordination would be externally sustainable. As noted in the SoTM Assessment, “The recent growth of smaller suppliers is an encouraging development. At January 2014, the smaller suppliers’ domestic market share was over 5 per cent in both electricity and gas, an increase of over 2 percentage points over a year previously. This shows that it is possible to enter these markets and compete with the six largest suppliers.”\(^{55}\) This effect can be seen in the evolution of both gas and electricity retail market shares over the last two years in particular, which shows that new entrants and smaller suppliers have gained market share at the expense of larger suppliers (see, for example, Figures 3 and 4 of the SoTM Assessment). Indeed, 43% of customers switching in July 2014 switched to small suppliers.\(^{56}\) This entry and growth of smaller suppliers (albeit limited by certain regulatory constraints, discussed further below) demonstrates that the third condition set out in the Market Investigation Guidelines is unlikely to be met: the possibility of new entry and the existence of smaller suppliers are likely to render any tacit coordination externally unstable.

3.59 ScottishPower notes that there are large differences between the generation portfolios of the largest UK energy suppliers. ScottishPower also submits that there is no evidence to suggest that the larger GB energy suppliers are attempting to coordinate to avoid asymmetries in their generation portfolios. Indeed, the SoTM Assessment specifically identified differences in generation portfolios as a factor that could undermine any attempt at tacit coordination: “The difference in generation portfolios and capacity between the six large suppliers could potentially make coordination more difficult if it caused them to react differently to shocks or gave some firms an incentive to deviate from coordinated behaviour”.\(^{57}\)

3.60 The Issues Statement (at paragraph 55) also states that the CMA will consider whether vertical integration may facilitate market sharing and specifically whether vertically integrated suppliers “try to avoid asymmetries in their hedging strategies and generation portfolios that might give any of their competitors windfalls from upstream activities that may influence their conduct in the retail market, including their incentives or ability to expand downstream”. However, this issue is not related to vertical integration; ScottishPower has separate hedging strategies for its generation and retail businesses and it is difficult to see why any other vertically integrated company would want to constrain itself to a single strategy. On the retail side, a supplier is incentivised to take a strategy

---

53 In this context, demand depends on variations in weather conditions in the short-term and economic conditions and energy saving measures in the medium- to longer-term.
54 Market Investigation Guidelines, at paragraph 252(a).
55 At paragraph 1.11.
57 At paragraph 4.49. Further, paragraph 5.79 of the SoTM Assessment considered the “diversity in generation portfolios between the biggest six suppliers. This will impact the extent of their ability to self-supply and their incentives to do so. This is because they all have different mixes of baseload (such as nuclear) and flexible (eg gas and oil) generation assets which have different marginal costs.”
which is: (a) as low cost as possible, so as to maximise its competitive position; and (b) as close as possible to the market average, so as to minimise risk. (A supplier that is much shorter than the market risks being unable to pass on unexpected wholesale price increases; one that is much longer risks having energy on its books that it has to sell at a loss.) The balance between these two objectives depends in part on the extent of the visibility of suppliers’ hedging strategies. These used to be a closely guarded secret, but intense media and political interest and Ofgem’s publication of reports discussing typical hedging strategies (for example, the Supply Market Indicators) have in recent years given suppliers somewhat greater high level visibility of typical hedging strategies (if not those of individual companies).

3.61 On the generation side, there is significantly more difference between market participants, both in the size and nature of the fleets. It would not make sense for ScottishPower to want to hedge a high proportion of the sales from its wind portfolio a long time in advance given that the extent of generation on any given day is unknown until a reasonably accurate weather forecast is available. In contrast, a generator with a large inflexible nuclear fleet might want to hedge its output well in advance, in the wholesale market or with process industry customers, so as to avoid being a distressed seller. Coal and gas supply logistics are different. There are also two large non-integrated generators (GDF Suez and Drax) which generate similar or greater amounts than ScottishPower
58 and which have their own hedging strategies. All of this indicates that the generation side is far too heterogeneous for there to be any obvious scope for coordination.

3.62 The CMA also suggests in the Issues Statement (at paragraph 54) that market outcomes, and in particular the timings of price change announcements and similarity and convergence of margins, may be consistent with tacit coordination. A simpler and more plausible explanation may be that raising consumer prices in the extremely transparent energy market (especially before any other supplier has done so) is a negative process for the company concerned. It damages the brand, causes loss of customers and allows other suppliers who may also need to raise prices, to adjust their plans to do maximum damage to the first mover’s business. Subsequent movers are likely to be less badly affected. Accordingly, a company independently pursuing its own interests, and facing broadly similar cost pressures to its competitors, would try to hold off from making any price announcement until after a competitor had made an announcement, then follow fairly quickly. This is often observed in practice. Similarly, when prices are falling, later movers may be able to position themselves advantageously against whomever goes first, again creating an incentive to bunch movements.

3.63 ScottishPower agrees, following paragraph 56 of the Issues Statement, that a quantitative analysis of price and cost trends over time could be informative in assessing any theories of harm based on a possible tacit coordination, subject to the application of the correct methodology. However, ScottishPower has a number of concerns with the methodology used in the SoTM Assessment and with the way in which conclusions were drawn from the results of the analysis. A critique of Ofgem’s work on ‘rocket and feather’ pricing is being prepared by Oxera for ScottishPower and will be provided to the CMA under separate cover.

(c) **Hypothesis 4c: regulatory interventions reduce the incentives for energy suppliers to compete**

3.64 ScottishPower believes that many of the problems with the current energy market can be attributed, at least in part, to unintended consequences of interventions by the regulator and government, and therefore welcomes the inclusion of hypothesis 4c in the Issues Statement. ScottishPower has provided the CMA with a list of key regulatory interventions, which the CMA may wish to consider in this context.\(^59\) In responding to the Issues Statement, ScottishPower agrees that the three examples of regulatory interventions highlighted (non-discrimination licence condition, RMR tariff

\(^{58}\) In 2013 ScottishPower (including renewables) generated 19 TWh, as opposed to 18 TWh for GDF and 26 TWh for Drax (source: SP segmental statements, Drax and GDF company reports).

\(^{59}\) Provided by ScottishPower to the CMA on 30 July 2014.
simplification rules and small supplier exemptions from social and environmental obligations) should each form part of the CMA’s assessment in its Market Investigation. ScottishPower’s thoughts on these three examples are set out below, as well as on three other areas from the longer list which ScottishPower has highlighted as worthy of consideration by the CMA:

(a) regulatory interventions contributing to the withdrawal from face to face selling; and
(b) changes to Ofgem’s duties in the Energy Act 2010.

3.65 More generally, in addition to these specific interventions, ScottishPower notes the finding of the SoTM Assessment that the “heavily regulated” nature of electricity and gas supply constitutes a barrier to entry and expansion by smaller suppliers.60

Undue discrimination licence condition

3.66 SLC 25A (Prohibition on Undue Discrimination) was in force between September 2009 and July 2012. The main motivation for introducing this licence condition was to stop former incumbent suppliers making higher profits from ‘in area’ than ‘out of area’ customers.61 However, the condition was heavily criticised by Professor George Yarrow who resigned from the Gas and Electricity Markets Authority over the matter. In a response to Ofgem’s consultation on the proposed measure, Professor Yarrow stated that Ofgem’s pricing proposals “can be expected to have harmful consequences for consumers and for competition” and claimed that Ofgem’s stance “points to a deep incoherence/inconsistency in policy toward competition”.62 Stephen Littlechild (former Director-General of the Office of Electricity Regulation), Sir John Vickers (previously Director-General and Chairman of the OFT) and Catherine Waddams (former member of the Competition Commission’s Reporting Panel) also wrote to Ofgem voicing their concern and advising it not to adopt a policy expected to be “detrimental to consumers and therefore bad policy”.63

Ex post analysis of suppliers’ pricing behaviour before and after the introduction of the licence condition suggests that the effect of the condition was to encourage suppliers to retreat into their ‘core areas’ and compete less intensively for new customers out of area.64 Contrary to Ofgem’s intentions (though as predicted by a number of economists) this may have increased the average prices paid by GB energy consumers. ScottishPower submits that this is likely to have influenced Ofgem’s decision in October 2012 not to renew the condition after it had lapsed in July 2012.

RMR tariff simplification measures

3.67 Ex post analysis of suppliers’ pricing behaviour before and after the introduction of the licence condition suggests that the effect of the condition was to encourage suppliers to retreat into their ‘core areas’ and compete less intensively for new customers out of area.64 Contrary to Ofgem’s intentions (though as predicted by a number of economists) this may have increased the average prices paid by GB energy consumers. ScottishPower submits that this is likely to have influenced Ofgem’s decision in October 2012 not to renew the condition after it had lapsed in July 2012.

3.68 Similar concerns have been expressed about the RMR tariff simplification rules.65 The RMR rules effectively prohibit a wide range of tariff options which previously helped suppliers respond flexibly to competitive challenges and which incentivised efficient behaviours by customers. Some of the most damaging consequences of these rules are set out below.

(a) Discounted products which offered customers a fixed percentage discount relative to the supplier’s standard tariff for a fixed term are now prohibited. Suppliers are now restricted to

---

60 SoTM Assessment, at paragraph 1.34.
competing on fixed price products (where the price is fixed for the duration of the term). Although these are currently proving relatively popular with consumers, the prohibition nonetheless represents a reduction in consumer choice.

(b) Cashback incentives are now prohibited. Evidence from consumer surveys suggests that the median saving expected by customers when switching supplier is generally considered to be around £100.66 Cashback incentives used to play an important role in incentivising customers to switch.

(c) Prompt payment discounts are prohibited. Suppliers are permitted to impose a late payment surcharge, but this is less attractive as an incentive and few if any suppliers have chosen to adopt it.

(d) Tariffs are limited to four. This tariff cap means that suppliers have to focus their tariffs on mass market needs and are no longer able to cater for niche markets (such as green tariffs). It also makes tariff innovation much harder as suppliers no longer have the space to ‘test and learn’ with new tariff concepts.

(e) Two tier (‘no standing charge’) tariffs are prohibited. The impact of this pricing constraint on low-consuming customers has been widely publicised, with many suppliers choosing not to target one of their four available tariffs at such customers. As a result, Ofgem has been forced into considering derogations to assist vulnerable consumers.

Small supplier exemptions

3.69 At paragraph 59 of the Issues Statement, the CMA states that it will consider whether the size threshold (250,000 accounts) below which a supplier is not required to meet certain social and environmental regulation obligations gives smaller suppliers a cost advantage and may also act as a barrier to expansion. ScottishPower believes that the Energy Company Obligation (ECO)’s ‘threshold and taper’ mechanism may inefficiently subsidise some suppliers while acting as a barrier to growth for others, consistent with the findings of the SoTM Assessment that the threshold acts as a barrier to expansion.67 The operation of this mechanism is shown in Figure 6 below.

---


67 At paragraph 1.34.
3.70 As shown in Figure 6, the ECO’s ‘threshold and taper’ mechanism exempts suppliers below a threshold and then tapers the obligation up so that companies with twice the threshold size have the same *pro rata* obligation as a large supplier. While this avoids some of the ‘cliff edge’ problems that arise with a simple threshold, it still results in:

(a) a substantial cross subsidy in favour of small non-obligated suppliers, which may encourage inefficient market entry;

(b) significant barriers to growth for mid-sized suppliers who are on the taper and face a higher marginal cost of ECO; and

(c) a barrier to consolidation of smaller entities to more efficient medium scale ones.

3.71 These problems could be alleviated by changes in the design to achieve a result which fairly allocates both the fixed and variable costs of ECO.

*Face to face selling*

3.72 Face to face selling (whether on the doorstep or in public places) has previously been a feature of the energy sector. While it is particularly difficult for suppliers to control to a high standard, and a number of companies (including ScottishPower) have been subject to enforcement action for deploying insufficient controls, face to face sales were an effective way of engaging with some of the most ‘sticky’ customers (e.g. those without internet access or who are not comfortable with using the internet and do not wish to engage in telesales calls). The withdrawal from doorstep selling by energy suppliers was one of the main reasons for the substantial drop in switching over the course of 2011.  

3.73 Suppliers withdrew from doorstep selling and in practice almost all face to face sales in response to two drivers: intense political and media pressure and the difficulty of complying with Ofgem’s requirements under the amended SLC 25 (Marketing to Domestic Customers). These rules, introduced in 2010, place requirements on suppliers to provide accurate quotations and price comparisons which go far beyond what is required in other forms of face to face selling and, as a result, very little (if any) face to face selling now takes place.

---

68 See SoTM Assessment at page 28, Figure 9. Npower, EDF, BG and SSE ended unsolicited doorstep selling of gas and electricity contracts in 2011 while E.ON and ScottishPower ended in 2012.
While there is a consumer benefit in preventing face to face transactions which may not always comply with the current SLC 25 requirements, there is also a potential consumer welfare loss from eliminating face to face sales as a route to engaging ‘sticky’ customers in the market. While ScottishPower does not have a definitive view on where the balance lies, or on whether there may be aspects of the SLC 25 rules that might go beyond what is necessary to provide sufficient protection from poor sales practices, it is important that the CMA should consider these issues as part of its assessment.

Regulator’s duties under the Energy Act 2010

As part of the wider context, ScottishPower would also encourage the CMA to consider the appropriateness of the regulator’s duties, as amended in the Energy Act 2010, to ensure that there is no bias toward ex ante intervention as an alternative to promoting a strong competitive environment. ScottishPower is concerned that the benefits of such interventions are more apparent to regulators than their costs, and that the cumulative impact of such interventions may distort or dampen competition. When Ofcom was established in 2003, one of its regulatory principles was to ‘operate with a bias against intervention’ and ScottishPower believes that this would be a useful principle for Ofgem.

In light of the provisions in the Enterprise and Regulatory Reform Act 2013 which confirm that competition action should be the first port of call for regulatory enforcement, ScottishPower believes that it would be timely to consider repeal of the provisions in the Energy Act 2010 requiring Ofgem to look at options other than competition first. The “multiplicity of policy objectives” reflected in Ofgem’s statutory duties was recognised by Ofgem in its initial submission to the CMA’s Market Investigation which noted that “At times, these duties may conflict with promoting effective competition.” Indeed, the regulator’s duties as a whole are now very complex as a result of successive modification and could usefully be re-drawn to be simpler, more focussed on competition and more comprehensible.

ScottishPower
14 August 2014

---

69 See sections 16 and 17 of the Energy Act 2010, amending section 4AA of the Gas Act 1986 and section 3A of the Electricity Act 1989: “Before deciding to carry out functions under this Part in a particular manner with a view to promoting competition ... the Authority shall consider ... whether there is any other manner (whether or not it would promote competition as mentioned in subsection (1B)) in which the Secretary of State or the Authority (as the case may be) could carry out those functions which would better protect those interests.”

70 See Schedule 14.

71 David Gray, Ofgem’s Chairman, noted in a speech delivered to the Regulatory Policy Institute Conference on 25 April 2014 that these provisions “always seemed to me to be a very clear steer away from the use of competition powers – and I’m sure it was meant as such at the time – as an antidote to the perception that Ofgem was obsessed with competition” (available at https://www.ofgem.gov.uk/ofgem-publications/87831/coherenceandstabilityinthecustomersharedaffairs25414.pdf).