

6 Views of Centrica

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Introduction

6.1. In this chapter we record the views of Centrica as put forward in a number of submissions and at three hearings.

The merger

6.2. Centrica's reasons for acquiring Rough are summarized in paragraph 3.62. Centrica provided the following elaboration of the points listed in that paragraph.

Centrica's hedging policy

6.3. Centrica said that its business was particularly focused on the domestic market, which consisted of customers with pronounced seasonal volatility of demand. As it had a smaller share of I&C customers (compared with the portfolios of some of its competitors), it was important for it to have a competitive range of flexible gas sources to meet the variations and peaks in demand.

6.4. Centrica's demand for flexibility had traditionally been satisfied, at least in part, by supplies from gas producers (including its own equity sources) on terms to provide such flexibility. In the past, this had been provided through long-term take-or-pay contracts. However, in recent years many of these had reached a plateau and started to decline. Between 2001/02 and 2002/03 Centrica's maximum daily deliverability from such contracts declined by some [§] GWh and a similar decline was expected over the next four years, so that over five years Centrica could be expected to have lost deliverability from such flexible contracts [*Details omitted. See note on page iv.*]. The loss was largely being replaced by new contracts that provided seasonal flexibility through predetermined shape profiles but little or no daily flexibility.

6.5. Centrica said that the average price for one year of Rough capacity increased significantly between 1999/2000 and 2002/03. In the light of the forecast decline in swing under gas purchase contracts for the UK market as a whole, Centrica expected that the value of flexibility, and hence the price paid by customers for Rough capacity, would continue to increase in the near future, irrespective of who owned it.

6.6. Centrica told us that it had a policy of acquiring upstream equity assets as part of its overall hedging strategy to manage its portfolio of gas and electricity purchases. Given the forward requirement for new sources of flexibility, and its view on forward prices of storage driven by the summer/winter differential, Centrica considered the acquisition of the Rough storage facility to be a natural extension of its hedging strategy to cover expected volatility in the price of storage and other forms of flexibility.

Security of supply

6.7. During 2002, Dynegy's financial position had created considerable uncertainty among Rough storage customers, particularly with regard to their credit risk exposure arising from gas 'owned' by them and held in store. The credit risk arose because under the SSC the operator of the facility, in this case Dynegy, was given title to the gas while it was in storage. Whilst title passed to the storage owner, the customer retained rights to inject and withdraw under the terms of the contract. Centrica, as one of the largest owners of gas stored in Rough, had been heavily exposed given that at the start of the winter it had approximately £[§] million worth of gas in the Rough storage facility. Other customers had been exposed to the same problem. The concern was that, in the event that the storage operator encountered financial difficulties, as was the case with Dynegy, a liquidator or administrator appointed could exercise its rights to ignore the contractual obligation and might sell the gas to third parties. An important (if short-term) part of Centrica's rationale for the acquisition was therefore to remove this credit risk with Dynegy.

Operational synergies

6.8. Centrica also believed that there was potential to create additional value through improved management of the operation at Rough. Specifically, it had identified potential synergies with its existing operational activities, which would reduce operating costs (see paragraphs 3.65 and 4.164).

Investment opportunity

6.9. Given Centrica's view of the need for flexible gas sources over the next few years, it regarded the acquisition of Rough as an investment opportunity. It was currently reviewing the various options for developing Rough and the potential for creating added value.

6.10. Centrica said that a number of other storage and other flexibility developments were in prospect. It would be in competition with those new sources and others, for example new inter-connectors, to meet the market requirements for flexibility.

6.11. Centrica had always envisaged that it might retain only a minority equity stake in Rough in the medium to longer term. It said it was likely that the opportunity to realize a profit on disposal of equity would principally be driven by the greater demand for Rough, supported by Centrica's planned improvements to the operation of the facility.

Interim arrangements

6.12. Centrica told us that, although the statutory undertakings that had been required of Dynegy had lapsed, since the merger had been announced it had continued voluntarily to operate Rough in line with the Dynegy undertakings. It had approached Ofgem to agree an acceptable basis on which its storage business could continue to sell capacity in Rough during the period through to the Secretary of State's decision on whether or not to refer the acquisition to the CC. At the time of the acquisition on 14 November 2002, only 55 per cent of Rough capacity had been sold for the storage year 2003/04 and it was important for customers to continue to have access to this unsold capacity during the critical buying period before the start of the new storage year in May 2003. It had therefore been agreed with Ofgem that capacity could be made available for the storage year 2003/04 on the same basis as had applied to Dynegy under its undertakings to the DGFT (ie sale on non-discriminatory terms on the basis of bilateral agreements followed by an auction process to clear remaining capacity). By the beginning of March 2003, all remaining capacity for the year ahead had been sold through bilateral agreements.

6.13. The Secretary of State's decision to refer the merger to the CC meant that there would be a period of uncertainty of at least some four to five months during which Centrica would expect to offer Rough capacity to the market in the ordinary course of business, subject to not prejudicing the CC's investigation. In discussion with Ofgem and the OFT, Centrica proposed a set of transitional operating arrangements for the period prior to the conclusion of the merger inquiry, in order to clarify the basis on which it believed limited quantities of capacity could continue to be sold to meet customer requirements for 2004/05 and beyond.

6.14. On 2 April 2003, Centrica gave interim undertakings to the Secretary of State to take no action which would lead to the integration of the Dynegy business with the Centrica business, or would prejudice the reference to the CC or impede the taking of any action under the FTA that might be warranted by the CC's report. At the same time, it formally presented its proposed transitional operating arrangements to the DGFT. To the extent that they included a proposal for the sale of storage capacity for storage years beyond 2003/04, the OFT noted that any such sales prior to the CC report would be at the buyers' risk. In the circumstances, no sales contracts of capacity for storage year 2004/05 or subsequent years had taken place.

Benefits arising from the merger

6.15. Centrica believed that its acquisition of Rough would be beneficial to the market in the following ways:

- (a) The ownership of Rough by a company with Centrica's high credit standing removed the uncertainty that had existed under Dynegey's ownership.
- (b) Neither Dynegey nor BG Storage, the previous owners, had made significant investment in Rough. Centrica was committed to spending an additional £2.8 million (compared with Dynegey's plans) to address, among other issues, a 47,000-hour maintenance backlog inherited with the acquisition (see paragraph 4.140), and it was considering further development plans.
- (c) Because of Centrica's long-term commitment to the UK gas market, its ownership of Rough would secure the continuing availability of the asset to the market and in turn contribute to security of supply for the UK.
- (d) Subject to the trading freedom available under any remedies required of it, Centrica intended to offer a range of innovative storage offerings driven by customer requirements.
- (e) There would be a high quality of operation and development given that Centrica had the necessary expertise required to operate Rough as a result of its operation of Morecambe and other UKCS assets.

Centrica said that it was unclear whether or to what extent alternative buyers of Rough could replicate these advantages.

Gas supply flexibility

6.16. Centrica commented that the matters we were investigating related to gas supply flexibility. The OFT and Ofgem believed that the merger potentially raised issues of market power in the supply of flexible gas, and also issues of vertical integration. The DGFT, in his advice to the Secretary of State, had referred to apparently high market shares and potential misuse of vertical integration. So far as concerns vertical integration, Centrica accepted that remedies would be required.

6.17. So far as concerns horizontal issues, Centrica maintained, however, that Rough was one of a number of sources of flexibility, all of which interacted and operated to constrain its pricing. Centrica argued that Rough was properly viewed as a price taker, where the price that customers were willing to pay for storage was set mainly according to the summer/winter gas price differential.

6.18. Centrica identified a number of sources of flexibility—storage, beach swing, the Bacton interconnector, interruption and LNG importation. (See paragraphs 4.70 to 4.124 for descriptions of these forms of flexibility.) It said that, in putting together a portfolio of gas supply flexibility to meet expected demand, users of flexibility would consider all potential sources in the light of:

- (a) the nature of their requirements (depending, for example, on their end-customer base and therefore whether they needed storage primarily to deal with seasonal swings in demand, longer-run macroeconomic shifts, or shorter-term demand peaks and troughs);
- (b) the characteristics of the various flexibility options available; and
- (c) their relative prices.

6.19. Centrica said that an increase in the relative price of any one source of flexibility would lead to a rebalancing of the optimal portfolio to incorporate less of that higher-priced source, and users would switch instead to other (now relatively cheaper) sources.

6.20. Consequently, in Centrica's view, the various sources of flexibility might be seen as coexisting within a portfolio and as potential substitutes:

- (a) negotiation of beach swing and interconnector capacity were clearly part of the same market dynamic; interconnector capacity provided flexibility just as beach swing from offshore supplies

did; and flows from use of interconnector capacity had a potential duration significantly greater than that of Rough;

- (b) Hornsea and other medium-duration storage sites had a shorter duration than Rough but were capable of being substitutes for Rough in relation to the management of shorter-term flexibility requirements;
- (c) to the extent that shippers used Rough withdrawal for daily balancing (given its short lead time), it competed with beach swing, interconnector flows, Hornsea and, on high-demand days, Transco LNG storage and interruption; and
- (d) the use of interruptible supply contracts and self-interruption could be seen as providing an analogous option to Rough storage for at least part of its functionality: Centrica suggested that interruption was akin to withdrawal from storage in that it moved gas between different uses.

Market definition

6.21. On the question of market definition, Centrica said that the various sources of flexibility had unique characteristics but all placed some competitive constraints on each other, channelled through the summer/winter price differential for wholesale gas. In its view, it was unnecessary to reach a decision on whether or not all these sources were part of a single market, because the undertakings it was prepared to offer would address concerns about the impact of the merger on access to Rough on any view of market definition. If the market was defined narrowly, then the merger created no horizontal overlap, but undertakings had been offered to deal with the vertical effects. If Rough was instead seen as part of a broader spectrum of flexibility options, then there were external constraints on the behaviour of its operator, and Centrica had offered undertakings to deal with any potential horizontal overlaps and any remaining vertical effects.

6.22. Centrica considered, however, that ‘storage’ was not an appropriate definition of the market. There was no reason to presume that one group of sources placed greater constraints on another because they all constituted (broadly speaking) an outlet into which gas could be injected when it was cheap, and from which it could be extracted at times of high demand. Centrica said that customers did not value the outlet itself, but instead cared about the services that such an outlet offered, namely the ability to arbitrage gas from one time period to another. In terms of the nature of services offered to customers, other sources of flexibility were no more different from Rough than were the various alternative storage sources. A customer requiring flexibility (for example, to deal with the varying demands of its own customers) would value the end result rather than the means by which flexibility was achieved. In Centrica’s view, Rough’s role in the market should be assessed in terms not of its physical characteristics but rather of the purpose for which it was used: to provide flexible gas supplies in response to varying demand.

Critique of Ofgem’s approach

6.23. Centrica had serious concerns about Ofgem’s approach to market definition as set out in its report to the DGFT. It submitted a critique prepared on its behalf by Lexecon, which noted that Ofgem had considered two separate markets, one for winter gas and another for daily or within-day responsiveness (daily flexibility). This conclusion was based on an analysis of the co-movements of gross gas take from different flexibility sources over time. Ofgem had specifically considered whether a day on which the level of beach gas used was increased was likely to be the same day that the rate of gross withdrawal from Rough increased, and similarly for other paired combinations of possible sources of flexibility. This exercise was carried out over the period of a year and, in addition, in response to certain ‘shocks’ to gas demand/supply in the UK, for example a lightning strike at the Easington terminal in December 1999. Ofgem’s conclusion was that some sources of flexibility tended to co-move with Rough usage in response to short-term fluctuations, while others tended to co-move in response to seasonal changes. Ofgem had proceeded to allocate the different sources of flexibility to the winter gas and daily flexibility markets (or, in the cases of LNG storage and self-interruption, to exclude them from both). It had then calculated concentration levels and share increments resulting from the merger that were very high and had concluded that the merger was likely to raise serious competition issues.

6.24. Lexecon took issue with this analysis on a number of grounds. First, it argued that the exclusion of LNG storage from both markets was based on product characteristics rather than pricing constraints. Ofgem's decision to exclude LNG had been driven primarily by the fact that it was of shorter duration than other flexibility sources. Lexecon said that this was an arbitrary decision: duration was just one of the characteristics of flexibility that users took into account when deciding whether to rebalance their portfolios in response to a change in the relative prices of different sources of flexibility. In its view, there was no reason to conclude that, because it was of shorter duration, LNG did not provide a competitive constraint to other forms of flexibility or that it was not constrained by them. LNG was unquestionably a high-cost source and therefore tended to be used at higher demand levels on the load duration curve: nevertheless it fed into, and its price was constrained by, the gap between winter and summer prices and, therefore, the value of being able to arbitrage between the two. Lexecon commented that Ofgem did not appear to have undertaken any analysis of this question.

6.25. Second, Lexecon said that the fact that sellers of flexibility sources were unable to price discriminate by end-use, ie to set a different price depending upon whether the buyer used it for winter gas or daily flexibility, undermined the credibility of distinguishing the two separate markets. A productive asset could be found to operate in two or more different markets if the producer could sell output from the asset to different customer groups at different prices, and such price differences could not be eliminated through arbitrage. Owners of Rough and other sources of flexibility could not, however, set different prices for winter gas and daily flexibility. Even if different prices could be charged to different customers, which Centrica disputed, most (if not all) of them used flexibility to meet a range of requirements, including winter gas and daily flexibility. Discrimination by end-use was therefore not possible, and in those circumstances there could be no meaningful distinction between the two uses as forming part of separate economic markets.

6.26. Third, Lexecon considered that Ofgem's inclusion of 100 per cent of the capacity of Rough (as well as Morecambe and the Bacton interconnector) in both the daily gas and winter gas markets it had identified was a major flaw in the analysis. If the uses were truly distinct, then capacity could not be used for both at the same time and should be allocated accordingly.

6.27. Lexecon commented that the allocation of 100 per cent of capacity to both markets suggested that the entire capacity of these sources was potentially available for each use. If that was so, then the capacity was clearly fully substitutable between the two uses. Even if Ofgem had taken this approach because it could not determine with any reliability what portion of the capacity was used for each purpose, for example because use was shifting over time, this again suggested that these sources of flexibility could easily be switched between uses. (Lexecon also argued that, as Morecambe was not fundamentally different from other swing gas fields, Ofgem should have counted all of beach swing in both markets.) Lexecon commented that, where supply-side substitutability was high, it was implausible that two separate economic markets could reliably be defined. Ofgem had repeatedly described Rough, Morecambe and the Bacton interconnector as competing in both markets, with interruptible contracts also featuring in both markets in a cold winter. Lexecon said that if the price of daily flexibility were to rise, owners of assets included in both of Ofgem's markets would find it more profitable to increase the proportion of their capacity that was allocated to that use and reduce the extent to which flexibility was available for winter gas. This would bring down the price of daily flexibility and push up the price of winter gas, and suppliers would rebalance between the two uses until prices were equalized. Lexecon therefore concluded that the two uses should be regarded as part of the same economic market.

6.28. Lexecon argued that even if there were any convincing arguments for defining separate markets for daily and seasonal flexibility, it would be dangerous to place any reliance on the concentration measures reported by Ofgem, because the analysis contained several errors. In brief:

- The market shares calculated by Ofgem appeared to double count Rough and Morecambe by including 100 per cent of the capacity in both the winter gas and daily flexibility markets, thus overstating Centrica's position.
- The methods used to calculate market shares on the basis of historical flows and daily upswing, rather than the flexibility that could be contracted for, gave misleading results, particularly when data on short-term upswing was aggregated.
- In its HHI calculations Ofgem had squared rounded, rather than actual, market shares. This could make a significant difference, given that under Ofgem's narrow market definitions Rough could attain high shares.

- Ofgem had suggested that the difference between Centrica's share before the merger squared and Centrica's share after the merger squared was a good measure of the increase in HHI caused by the merger. This was misleading, even if the market were correctly defined: in order to calculate the increment the pre-merger share of Centrica squared plus that of Dynegy squared needed to be compared with the post-merger outcome.

Lexecon concluded, therefore, that Ofgem's market share calculations were unreliable, and in particular that they overestimated both Centrica's own share and the impact of the merger on concentration.

6.29. Lexecon also challenged Ofgem's methodology in its analysis of co-movements in gas flows from different sources of flexibility. It doubted that this could provide a meaningful insight into the substitutes for Rough at the time of purchase. It believed that the appropriate way to analyse the competitive effects of the merger was to assess Centrica's incentives to hold back the supply of flexibility post-merger, in order to drive up profits at Rough. Lexecon's own analysis (see paragraph 5.71 and Appendix 5.5) had followed that approach and had demonstrated that such a strategy would not be profitable.

6.30. In addition, Ofgem had, in Lexecon's view, seriously understated the role of other storage sources, and of the Bacton interconnector, by using data on gross withdrawals/imports from these assets rather than looking at their full contribution to supporting the summer gas price (by providing an outlet for cheap gas through injection/exports) as well as by reducing the winter gas price. Similarly, Ofgem's failure to use net flows from those sources gave an erroneous impression of the true responses of the various sources on individual days.

6.31. Finally, Lexecon identified a number of errors and inconsistencies in Ofgem's use of the available data, which it believed further undermined Ofgem's analysis.

Competition in the supply of gas flexibility

6.32. Centrica said that, although it had an apparently large share of beach gas and (in the absence of undertakings) of storage, there were significant sources of flexibility that were not owned by or contracted to Centrica. Not only were beach gas supplies contracted to others to a greater extent than in the past, but also the Bacton interconnector was capable of providing significant flexibility at present and, once enhancements under way came on line in 2005, even greater flexible capability in the near future.

6.33. Centrica maintained that it could not, therefore, reasonably be regarded as having market power in flexibility as a result of the merger, still less as having had such market power before the merger. It said that the summer/winter differential was determined by a wide range of market factors stemming from the availability of gas in summer and winter relative to demand. Centrica's share of the sources of flexibility feeding into this supply would be only 41 per cent—on the borderline for concerns about dominance—even if the whole of Rough capacity were ascribed to it. Furthermore, its share of flexible gas would decrease significantly in future years. For example, by 2004/05, the first year for which Rough rights remained to be sold, Centrica's current usage rights would constitute only 31 per cent of total market flexibility.

6.34. Amplifying these points, Centrica said that in terms of total deliverability (GWh a day) of flexibility, Rough's share was only 10 per cent. In addition, Centrica had proposed a remedy that would restrict its control over Rough capacity from 2004/05 to 25 per cent of that 10 per cent allocated in the primary market (see paragraph 6.142). Its total share of controlled deliverability after the proposed remedy was taken into account was around one-third if a 25 per cent limit on the proportion allocated to it in the primary market was taken into consideration. Centrica said that with the bulk of total UK deliverability available to others in the flexibility market, there were considerable competitive constraints now on the use of Rough (and on Centrica more generally). Moreover, the percentages referred to above took no account of the role of self-interruption and therefore constituted an overstatement of the true position.

Gas storage

6.35. Centrica held a 100 per cent equity stake in Rough, but had only contracted (through the primary and secondary markets combined) for 25 per cent and 31 per cent of its capacity for storage years 2002/03 and 2003/04 respectively. The remaining capacity had been sold to third parties. All capacity after 2003/04 was as yet uncontracted. Technically, therefore, Centrica held 100 per cent of this capacity, but it was willing to undertake to reserve no more than 25 per cent for itself through to 2007/08 so that most of the capacity would be made available to other parties. Given that in recent years Centrica and Dynegy had each held around 30 per cent of Rough capacity, the net effect of the withdrawal of Dynegy and the limit on Centrica's reservation would be to increase significantly the proportion of capacity available to others.

6.36. Centrica said that it held no equity stake in the other UK storage sites (Hornsea, Hatfield Moor, Hole House or Transco LNG). Through contracts, it held [X] per cent of capacity at Hornsea for storage years 2002/03, 2003/04 and 2004/05, and 34 per cent of capacity at the Transco LNG sites for 2002/03. It did not hold capacity at Hornsea beyond 2004/05 or at Transco LNG beyond 2002/03. Nor did it hold any capacity currently or in forward years at Hatfield Moor or Hole House. All storage rights at Rough, Hornsea and the LNG sites were subject to 'use-it-or-lose-it' principles so that Centrica's contracted capacity was available to others if it chose not to use it.

Beach supply

6.37. Centrica said that it owned a (declining) source of beach swing, in the form of Morecambe, with a current peak deliverability of around [X] GWh a day. This peak deliverability compared with an average daily off-take of around [X] GWh a day, resulting in a peak/average difference ([X] that used by Ofgem in previous calculations of beach swing) of [X] GWh a day. In addition, Centrica currently had contractual access to other beach sources (for example, Sean, a high-swing but very high-cost field). However, many other important sources of beach swing were available in the market. The proportion held by Centrica had eroded over time. If the summer/winter differential (and hence flexibility prices) rose, it might be expected that the cost of providing new/incremental swing (ie of producing less in summer) would be outweighed by the benefits (ie the value of flexibility) for gas producers generally.

6.38. Centrica explained that, under a number of its gas purchase arrangements (representing in total around 50 per cent of its contracted maximum daily beach offtake), if it did not nominate volumes for offtake the gas producer was able to sell gas to other traders. Consequently Centrica's share of beach swing available under its portfolio of contracts was not an indication of an amount of swing that Centrica could hypothetically withhold from the market in order to restrict supply of flexible gas.

The Bacton interconnector

6.39. Centrica told us that it held no equity stake in IUK, the company which owned and operated the interconnector, neither was it one of the parties financing the capacity expansion currently taking place. Furthermore, before this expansion was due to come into effect, one of Centrica's existing contracts for interconnector capacity would expire, and the net result would be to maintain its access at a level similar to the current one. (See paragraph 4.86 for details of Centrica's contracts for interconnector capacity.)

6.40. Centrica said that the Gas (Third Party Access and Accounts) Regulations 2000 imposed requirements for the publication of terms and conditions for the sale of interconnector capacity by traders such as itself. Centrica also told us that the interconnector operated a form of 'use-it-or-lose-it' regime, so that any contracted capacity that Centrica did not use might be made available for use by other traders.

Interruptible contracts

6.41. Centrica told us that its share of total daily interruption was less than a quarter (see paragraph 4.96 for details) and that the majority of interruptible contracts was in the hands of third parties. Centrica told us that it had started off with ten LTI contracts, three of which had already terminated. It currently

expected the remainder to run their course, ie for a further five to eight years. Centrica pointed out that the importance of interruptible contracts as a source of flexibility had been recognized by a recently published report commissioned by Transco from NERA and Accent Market Research Ltd,¹ which concluded that, in Transco's model of a 1-in-50 winter: 'Over the peak days, supplier interruption (including Transco interruption) has a major impact on reducing overall demand ... Overall demand is reduced by approximately 18 per cent in response to higher gas market prices, allowing both the electricity and gas systems to balance.'

Centrica's future position in the supply of gas flexibility

6.42. Centrica said that, on the basis of its current rights, its position in the supply of flexibility was likely to decline further. Several of its long-term beach swing and interruption contracts were due to expire or decline in importance over the coming years, and additional sources of flexibility were due to be brought to market, in particular the interconnector expansion and new sources of medium-range storage (ie storage with a duration of around 20 days). Centrica provided an analysis based on the assumption that total market supply of interruption rights, Rough, Hornsea and LNG capacity would remain constant. Its estimates of future beach supplies had been taken from Transco's 2002 Ten Year Statement. Centrica commented that these estimates were relatively conservative: for example, they did not include any new interruption that might become available or the ability to self-interrupt, and they did not include the potential impact of LNG imports.

6.43. In forecasting the change in its position in terms of current asset holdings (through ownership or long-term contracts) that would continue to exist in the market, relative to the future market size estimates, Centrica estimated shares both for the case where 100 per cent of Rough's capacity was ascribed to Centrica (ie on an ownership basis), and on the basis of actual bookings for years which had been sold and a 25 per cent reservation level for future storage years. Its beach estimates included new contracts for shaped beach gas (for example, with 180 days of a higher-take level in winter, and 180 days of a lower-take level over summer). It said that, although these sources would contribute to the ability to meet seasonal swing, they were clearly not directly equivalent to the flexible beach sources that would be lost. It had not included Hornsea after 2004/05 and LNG was absent after 2002/03, as capacity for future years had not yet been booked. Centrica would have to compete for its future rights in relation to these assets in the market. If the value of flexibility were to increase in the interim, this would be reflected in higher prices paid by Centrica for rights to use those assets. Similarly, other flexibility lost to Centrica would in many cases not be lost to the market, or might be replaced by new sources. Any firm that wished to purchase this capacity would then be able to compete for rights to use it, with prices determined by prevailing market conditions.

6.44. Centrica's forecast suggested that its current holdings (through ownership or contract) of flexibility assets constituted a decreasing share of the market over the coming years. Centrica argued, therefore, that its market share was not fixed in stone, but rather could quickly diminish if it were not successful in future competitions to purchase these rights. It said that a key conclusion from its analysis was that by 2004/05 (the first year for which Rough rights had not yet been sold), its current rights to use flexibility would account for only 30 per cent of the market for flexibility. This would fall to 23 per cent if its offered 25 per cent limitation on the allocation of Rough capacity to Centrica were taken into account.

Existing and prospective competitive constraints on Centrica

6.45. In Centrica's view, the merger could not reasonably be regarded as having a substantial impact on the supply of flexibility, given that some 67 per cent of all flexibility (even before the possibility of self-interruption was taken into account) was currently owned by market participants other than Centrica. Moreover, any operator of Rough, even if it had the ability to increase prices in the face of prevailing competition, would have to take account of the threat of potential new entry in several of the competing sources of flexible gas supply in response to higher prices.

¹Study to investigate the likelihood of firm load self-interruption in a severe winter, NERA, May 2002.

Other gas storage facilities

6.46. Centrica said that Rough competed with other storage facilities, specifically Hornsea (owned by SSE), the LNG sites and the recent entrants, Hole House and Hatfield Moor. Furthermore, several new entrants (or expansion plans) were scheduled to join Hornsea in providing MRS. These plans included the expansion of Hole House and new sites at Humbly Grove, Byley and two separate sites at Aldbrough. Planning permission had been granted for the Aldbrough sites and was being sought at the other sites. These projects were due to come on-line at various points during the next five years. Centrica maintained that they would tend to compete with Rough in the provision of flexibility.

6.47. Centrica said that several new storage projects had been proposed whose development could be accelerated in response to any increase in the price of flexible gas supplies. For example, a project at Fleetwood consisted of the development of a series of caverns, up to a maximum storage of 4,500–6,000 GWh (15–20 bcf) of space. Centrica maintained that the speed of this development would be influenced by the expected market price of flexibility.

6.48. Centrica suggested that new offshore storage, of the type offered by Rough, could become an attractive investment for third parties. A number of depleted gas fields might be suitable for conversion if the level of the summer/winter differential were to provide sufficiently attractive economies for development (see paragraph 4.111).

Beach swing

6.49. Centrica said that beach swing was an important competitive constraint on Rough since it offered peak flows that could be accessed over long periods of time. Gas producers introduced beach swing into the market by reducing summer gas production, relative to winter output levels, in response to market price signals. There was a cost to the producer of introducing swing, which meant that this source of flexibility had a price, as with any other source of storage/flexibility.

6.50. Other sources of beach swing were available to other operators. Centrica said that it held a declining amount of beach swing, in part because of the falling production of Morecambe. Moreover, additional beach swing could be introduced by gas producers and made available to the market; such a development would be likely if the summer/winter differential were to widen.

LNG import terminals

6.51. Centrica understood that Transco was planning to build a new reception facility at its existing LNG plant on the Isle of Grain, for the importation of LNG by bulk carriers. In addition, construction of two other LNG importation facilities, at Milford Haven, was being considered (see paragraphs 4.11 and 4.12.) Centrica said that there was potential swing capacity in these developments and contractual buyers of LNG were already actively redirecting cargoes in response to price differentials between EC and US markets. By virtue of its physical liquidity, LNG gave more opportunity to trade flexibly between different geographical markets than pipeline gas.

The Bacton interconnector

6.52. Centrica told us that the Bacton interconnector was an important competitive constraint on the prices of UK sources of flexibility, including Rough, because of the quantity of flexibility it could provide and its duration, through its year-round operation.

6.53. Centrica said that the importance of the interconnector lay in its asymmetrical impact on UK market prices:

- (a) In summer (off-peak), when UK demand and gas prices would otherwise be low, the interconnector represented significant incremental demand for UK gas and raised summer prices from the level they would be if it did not exist.

- (b) In winter (peak), when UK demand and prices would otherwise be higher, the interconnector first reduced export flows, ie volumes earmarked for export were kept back for supplying the UK market: instead gas required to meet long-term export contracts was sourced from mainland Europe. Second, the interconnector was able to move into reverse flow and import gas. This acted to reduce UK prices from the level that they would otherwise have reached.

Winter prices were effectively capped by gas prices in mainland Europe, which were linked to oil prices.

6.54. Centrica commented that, as noted in paragraph 4.85, the interconnector was a source that could be used to manage the flexibility of the UK market by use of storage and swing from mainland Europe, for example France and Germany.

6.55. Centrica also referred to the investment being undertaken by the owners of the interconnector to install extra compressors at Zeebrugge (see paragraph 4.88), as a result of which there would be greater competitive pressure on Rough. Centrica was also aware of proposals for a second phase of interconnector capacity enhancement, which could be achieved relatively quickly and economically.

New interconnectors

6.56. Whilst the recently signed contracts for imports by Centrica from Statoil and Gasunie were for delivery at the NBP, it was likely that both would require enhancement to the existing import pipeline infrastructure. In the case of the Dutch supplies (Gasunie), a new interconnector was likely with the potential for enhanced capacity over that required for the Centrica contract flows. The owners of the Ormen Lange Norwegian gas field had invited tenders for the provision of pipeline reception facilities and entry into the NTS for an interconnector bringing gas to the UK from Norway. The Easington area was one of the preferred sites.

Interruptible supplies and self-interruption

6.57. Centrica said that any supplier of non-domestic gas customers was able to enter into interruptible contracts as a means of achieving some flexibility. In such cases, the contract gave the supplier the right to cut off supply for up to a given number of days. Although an interruption right was a demand-side rather than supply-side response to peaks in demand, Centrica said that such contracts would become more attractive the higher the winter gas premium (suppliers would be prepared to pay more (through price reductions relative to non-interruptible supplies) for each day's interruption), and should therefore be expected to respond to any increase in the price of flexibility (including storage). This would constrain Rough prices.

6.58. Centrica told us that, in addition to supplier interruption rights, some customers might respond to price signals by self-interrupting and indeed might self-ship, supplying their contracted gas purchases back into the market at a profit. In particular, gas-fired electricity generators were likely to respond to high gas prices, relative to the value of that gas used in power generation, by supplying their gas back into the market. Centrica said that an estimated 50 per cent of the annual load of 322 TWh was supplied at the NBP and was therefore potentially available to the market through customer self-interruption. Furthermore, several of the generators taking gas under such contracts were direct competitors of Centrica in the downstream domestic and non-domestic gas supply markets. They would, therefore, be potential storage customers, with a strong incentive to self-interrupt were the summer/winter differential to increase.

6.59. Centrica pointed out that NERA's report on self-interruption² indicated that:

- (a) demand-side responses by customers would play an active role in reducing demand during a severe winter;

²See footnote to paragraph 6.41.

- (b) gas-fired power stations would be the most responsive element of demand either by being interrupted by their supplier or by individual choices to arbitrage between the gas and electricity markets; and
- (c) supplier interruption of, and self-interruption by, industrial customers would also impact on demand and effectively curb market prices.

Virtual storage

6.60. Centrica pointed out that it was open to traders and other wholesale gas market price risk takers to offer virtual storage services by giving the buyer the right to call and put gas with the counter-party (within specified parameters). Enron had used to run such a service and Centrica was aware of similar new services being offered, including Innstore, launched by Innogy in March 2003.

Impact of competition on storage/flexibility prices

6.61. Centrica said that the value of the different sources of flexibility stemmed from the ability that they conferred to arbitrage gas from one time period, location or use to another. Consequently, the price of physical access to each source would be driven by the relative market prices, for example mainland Europe versus the UK, winter versus summer and high- versus low-demand days. These prices would in turn reflect the availability of gas at those times. This mechanism allowed pricing pressures to be transmitted from one source of flexibility to another. For example, an increase in supply of medium-duration storage, such as might arise from the current investment plans (see paragraph 6.46), should allow more gas to be arbitrated from periods of low prices to high-priced periods. The effects should be somewhat higher summer prices (because of the additional demand created for summer gas), and lower prices on at least 18 of the peak days in winter (assuming a similar duration to Hornsea). Consequently, the value of other assets, including Rough, that could be used to arbitrage between these summer and winter days would fall. Centrica said that the price that all these alternative sources of flexibility, including Rough, could achieve was reflected in wholesale market prices, which in turn reflected the value of the flexibility to move gas through time. The value of Rough storage was set by the price spread between summer gas and winter gas, as buying winter gas and selling summer gas provided an alternative to having Rough storage. In brief, Rough was a price taker of the summer/winter price differential.

6.62. Although, because of the historic infrequency of sales, prices at Rough could not easily be tracked over time, the available information suggested that the summer/winter differential had in the past played a key role in determining the price paid for Rough capacity, whether set through an auction process or by bilateral negotiation. Centrica commented that the evidence was consistent with the proposition that the operator of Rough was constrained in its ability to raise prices by this summer/winter differential.

6.63. The analysis of the merger undertaken by Ofgem had concluded that beach gas supplies and the Bacton interconnector were reasonably close substitutes for Rough for winter gas and that in a cold winter interruption could also be a constraint. Ofgem had also concluded that in relation to daily flexibility Hornsea, interruption and the interconnector were good substitutes for Rough, together with Morecambe. Centrica said that it was unclear why Ofgem had excluded other beach swing fields. In its view it was wrong to exclude other swing fields that could substitute for storage or other sources of flexibility merely because they had not recently been so used. They were potential substitutes in the event of any increase in the price of flexible gas (or any abuse of market power by Centrica).

6.64. Centrica believed that Ofgem's distinction between winter gas and daily flexibility was not a meaningful approach to market definition and not clearly defined. In Centrica's view, sources of flexibility should be seen as having a variety of characteristics, with some sources relatively more suited to certain requirements (whether this was providing small amounts of gas to the market over a prolonged period, allowing the fast injection of gas over cheap summer days, responding quickly to a sudden change in demand, etc). In practice there was an entire spectrum of different flexibility needs which different sources were more or less well equipped to meet. Which sources were matched to which requirements would depend on supply and demand factors and the resulting prices. Any attempt to

restrict output or raise the price of one source would lead to users rebalancing their portfolios, shifting demand away from the increased price source.

6.65. In Centrica's opinion, although the data available was short of what would be required for a rigorous application of the SSNIP test, there were several pieces of empirical evidence to indicate that there was competitive constraint from alternative sources of flexibility via the summer/winter gas price differential.

Centrica's responses to previous Ofgem consultations on transfers of ownership of Rough and Hornsea

6.66. We reminded Centrica of a number of submissions it had made to Ofgem, in response to consultations about Dynegy's acquisition of BG Storage in 2001 and SSE's subsequent acquisition of Dynegy Hornsea Ltd in 2002, in which it expressed concerns, among other things, about the strong market position of the owner of the Rough and Hornsea storage facilities and the apparent lack of sufficient competition from other sources of flexibility. Two of the submissions are reproduced at Appendix 6.1. We asked Centrica to reconcile its position now with its comments in those consultations.

6.67. Centrica said that its responses to Ofgem were essentially consistent with its submissions to us in relation to its purchase of Rough. It made the following points:

- market definition was complex and the proposed undertakings were capable of resolving all legitimate concerns, however the market was ultimately defined;
- Rough provided flexibility specifically through storage, but flexibility was also provided in a number of ways; therefore storage services had to be correctly placed in the wider context of the full portfolio of flexibility;
- the previous responses reflected Centrica's position as a major user of storage services, and were designed to ensure that such use was able to continue on reasonable terms after the transaction under consideration at the time. Centrica had a demand for a significant tranche of storage, and for flexibility in general. It therefore sought, through the regulatory processes, to ensure that any post-merger regime would enable it to acquire sufficient capacity for its own needs without foreclosing access by others;
- Centrica believed that there were issues of confidential information and discriminatory operation, but that they could be resolved;
- regulatory issues would arise whoever owned Rough and/or Hornsea; and
- the issues could be addressed by undertakings.

6.68. In its responses to the consultations in 2001, Centrica had sought to ensure that the regulatory controls that had been placed on BG Storage in relation to Rough and Hornsea, which were due to continue until April 2004, were not removed as a result of the sale to Dynegy. At the time, it was concerned that Dynegy's proposals represented a significant weakening of the position. Centrica had continued to argue that undertakings were essential in its response to consultations in 2002 about the purchase of Hornsea by SSE.

6.69. Centrica said that its view of market definition—that gas storage was part of a wider market of gas flexibility—was consistent with its comments to Ofgem in October 2001 when it had stated: 'Ofgem have rightly identified that there are relatively close supply and demand substitutes for the services provided by physical storage services ...'.

6.70. In previous consultation responses, Centrica had referred to a gas storage market. The Ofgem consultation papers for the Dynegy and SSE acquisitions had focused initially on the physical storage market. This reflected Ofgem's approach in reviewing/regulating storage in the past, where the focus had been entirely upon the storage market. Centrica said that its statements should be seen in that light, rather than taken out of context. Furthermore, Centrica explained, its need for different types of storage and

other forms of flexibility was a significant consideration. In view of Centrica's exposure to the peaky demand of its domestic customers, it needed a range of storage and other flexibility tools and also needed to hold an appropriate proportion of storage. Rough was, therefore, an important element in Centrica's portfolio of flexibility and the responses to consultation had been constructed against that background.

6.71. References in the documents to Rough being a monopoly and the owner of Rough having market power could similarly be explained by the regulatory focus on the physical storage market. Centrica commented that, given the importance of ensuring security of supply, it was valid to suggest that Rough has 'unique operational and security parameters and will continue to fulfil a unique role in the national gas supply/demand balance', as Centrica had stated in its August 2001 response. It had also said that '... on many days, such facilities [other sources of flexibility] can be alternatives in helping to achieve a supply/demand match' and that 'they are not substitutes to the extent that they can ... enable industry to avoid use of Rough [or Hornsea] services in total ...'. These statements said nothing about the extent to which other sources of flexibility constrained the pricing of Rough, and hence nothing about market definition.

6.72. Centrica maintained that there was no inconsistency between the points discussed above and its submissions to Ofgem, the OFT or the CC in this case. It was still Centrica's position that each source of flexibility had its own characteristics, so that they were not all perfect substitutes: however, there was sufficient substitution between them such that each fed into and constrained the price that could be charged for other sources of flexibility, including Rough capacity. This pointed to a wider market definition, which entailed a review of Centrica's position in the wider flexibility market.

6.73. Centrica said that its view on the areas where undertakings were desirable in respect of Rough had not changed since its responses to the Ofgem consultations. It had argued for a similar range of undertakings to be put in place in relation to the purchase of Hornsea by SSE and it accepted that a similar range of undertakings was appropriate for its acquisition of Rough. It commented that it was especially important for capacity to be available to the market on non-discriminatory terms and that commercially sensitive information was protected.

6.74. With regard to sales of capacity, Centrica said that its position on the SSC had not changed. Centrica continued to support the continuation and extension of the SSC as it was a known quantity, ensured non-discriminatory terms and conditions for all parties and thus facilitated the secondary market.

6.75. In response to the consultations in 2001, Centrica had said that it was in favour of auctions for multi-year Rough capacity and had also suggested that such sales be on a fixed-price basis. However, it had never suggested that the majority of Rough capacity should be sold on a long-term fixed-price basis. It had made those comments as a major buyer at that time, with a clear demand for such capacity.

6.76. Centrica said that it was willing to sell Rough capacity at a fixed price on a long-term basis to any buyer that was willing to pay a reasonable price, ie a price based on the likely future summer/winter spread over the relevant period. Its concern over Ofgem's proposal that the majority of capacity at Rough should be sold on a long-term, fixed-price basis was that there would not be sufficient demand for such capacity and that the prices resulting from a forced sale of capacity in excess of demand would be below the natural floor for Rough capacity (ie the forward summer/winter spread) and below what could be achieved through either rolling one-year sales of capacity and/or longer-term indexed-priced deals. In short, these artificially low sales prices would undermine the value of Rough capacity and would distort the price signals for new investment by Centrica or any other potential suppliers of flexibility.

6.77. Centrica said that it had no objection to auctions of unsold capacity. It did, however, recognize the appetite for bilaterally negotiated sales of Rough capacity, as had been revealed when Ofgem first allowed Dynegy to make such sales. It said that bilateral sales offered the market the same level of price transparency as auctions, since the weighted average price paid through both sales processes was published on STORIT prior to the start of the storage year, as stipulated by the SSC. Bilateral sales, however, provided greater flexibility because customers did not have to rely on a single yearly auction to source their capacity, but could instead pick up tranches of different contract lengths, volume and/or price at any time during the year.

Public interest issues

6.78. This section records Centrica's comments on the public interest issues set out in our issues statement published on 4 April 2003 (see Appendix 2.1).

6.79. Centrica accepted from the outset of the inquiry that it would be appropriate for it to give undertakings governing aspects of its conduct as owner and operator of Rough. It explained, however, that this was because it believed that, given the unique importance of Rough, any owner of the facility should be subject to undertakings. In particular, it considered that any owner that, like Centrica, was vertically integrated in the gas industry in Great Britain should be required to undertake to make available to the market the full capacity of Rough; not to discriminate in making capacity available; and to maintain internal separation arrangements in order to protect commercially sensitive information. These requirements arose because of the nature of the asset and the change in its ownership: Centrica did not accept that the merger was necessarily against the public interest for the purposes of the FTA.

Issue (i): Whether, as a result of the merger, Centrica has the incentive and ability to withhold Rough capacity and/or other sources of flexibility from buyers of flexible gas, with the effects of increasing prices of flexibility and reducing liquidity in gas trading.

6.80. Centrica said that as the owner it would not restrict access to, or the supply of, Rough storage. Indeed, it was required by the Petroleum Act to provide third-party access. It pointed out that concerns in principle about restriction of access to Rough had arisen regardless of who owned the facility. The issue had been addressed by regulation when first BG and then Dynegy owned Rough, and should be capable of solution in that way now that Centrica was the owner. As noted in paragraph 6.79, Centrica had indicated that it was willing to agree to undertakings regarding access to Rough capacity. It said that we should also note that existing 'use-it-or-lose-it' contractual arrangements would continue to apply to Centrica as a storage customer in the same way as to any other customer of Rough. Whilst it would in principle be possible for Centrica to scrap the 'use-it-or-lose-it' provisions when current contracts expired in April 2004, in practice it was highly unlikely to do so because customers would be strongly opposed to it.

6.81. Centrica maintained that it did not have the incentive to restrict access to other sources of flexibility. The argument against the merger appeared to be that, even with Rough capacity made available on non-discriminatory terms, Centrica could use its control of other sources of flexibility to force prices higher. The implicit assumption had to be that Centrica had both the incentive and the ability to drive up the summer/winter price differential, which constrained the price of Rough storage, by either depressing the summer price or increasing the winter price. Any attempt by Centrica to do the former would not harm downstream rivals or end-customers, as any increase in the price of storage would be completely offset by the availability of cheaper summer gas. Therefore the only potential concern would be whether it might be in Centrica's interests to attempt to drive up the price of winter gas and, by thus increasing the summer/winter price differential, raise the price of Rough storage. Centrica maintained that such a strategy was not in its interests. Its comments are recorded in the following paragraphs.

6.82. Ofgem's assertion that Centrica was 'long in gas' was, in Centrica's view, misleading. Whether it was long or short in physical gas, its incentives should be assessed in financial rather than purely physical terms, and in that sense it should be regarded as short in fixed-price gas. Centrica said that a significant and growing proportion of its forward contracted supply was exposed to floating gas prices, so it suffered from an increase in the gas price notwithstanding higher profits on any market sales of gas in the current year.

6.83. For future delivery years an increasing proportion of forecast demand was not yet covered by contracted gas. If gas prices rose, new contracts would have to be taken out at the new, higher price. Consequently, a strategy to increase winter prices in order to drive up the price of Rough storage would raise Centrica's own procurement costs (even after taking into account profits on its net sales to the wholesale market). In any current year, Centrica was likely to be long in physical gas on the basis that it contracted supplies to meet demand in a severe winter which, in the event, was unlikely to occur. Even then, a part of this physical supply would be moving with NBP prices. Thus, Centrica was exposed to NBP prices even in the current year (ie was short in fixed-price gas) and therefore had no incentive to withhold any available dedicated supply in order to achieve a sustained increase in winter gas prices.

6.84. Centrica said that a strategy of withholding supply would cause it to incur the costs of a sub-optimal production profile. With the exception of Sean, it generally ran flexible beach gas sources at maximum available rates on typical winter days. If that output were held back, the expected NPV of the output would be lower, either because it was produced in the summer when prices were lower, and/or because it was produced at the end of the field's life and was subject to significant time discounting. Meanwhile, the gap in Centrica's own procurement would have to be filled with more expensive market-priced gas. This additional cost would have to be offset against any increased profits at Rough.

6.85. Centrica told us that its gas purchasing costs of approximately £3 billion a year were to a significant extent exposed to market prices. To put that in context, Rough turnover was approximately £90 million a year. Centrica strongly disagreed with Ofgem's view that it could be expected to be relatively immune from gas price rises. It provided data to show that one-third of its annual gas supplies moved with NBP prices in the year 2002/03, and that the proportion was expected to rise to around 60 per cent in 2006/07. If the tax impact of Morecambe production (at contract prices which were market related and agreed with the OTO) were added to this, the equivalent figures were [38] per cent in 2002/03 and [38] per cent in 2006/07.

6.86. Centrica said that it could not be sure of recovering those increased costs. Any attempt to drive up the winter price would be a high-risk strategy because of the high degree of uncertainty in the extent to which forgoing use of Centrica's own flexibility sources would actually translate into a higher market price. Further, the pass-through to customers of an increase in gas procurement costs was subject to delay, during which the supplier had to bear the additional costs. Indeed, pass-through to LTI customers was not possible at all, given their indexation to oil prices and other factors rather than gas, whilst pass-through to I&C customers would be delayed given the terms of their contracts. As regards the domestic market, pass-through carried additional risks. Centrica had found that it always lost market share downstream when, as a result of an increase in wholesale gas prices, it sought to pass on the resulting increase in procurement costs, even when the increase affected all suppliers and others increased prices too, and even when Centrica was not the 'first mover'. In particular, Centrica's analysis of its own churn data showed that:

- (a) even a small price rise induced significant customer losses (over and above the churn rate that might be expected absent the rise);
- (b) there was a clear relationship between customer losses and size of the price increase, so that any additional, say 1 per cent, increase in price could be expected to have significant effects in terms of additional customer losses; and
- (c) the level of losses was also influenced by the timing of the increase, relative to competitors, so that any price increase that was implemented by Centrica before most others had an even stronger impact in terms of customer losses. Moreover, because of its dual-fuel strategy (see paragraph 5.18), electricity customers might be lost if the gas price rose, even if electricity prices remained unchanged.

6.87. Centrica maintained that it did not have the ability to restrict its competitors' access to other sources of flexibility. It said that 67 per cent of sources were not currently contracted by Centrica. Nor was this percentage set in stone, as several new sources, or sources currently contracted to Centrica, would come on to the market over future years. For example, by 2004/05 (the next year for which Rough capacity would be sold), 70 per cent of sources would be contracted to other customers even ascribing 100 per cent of Rough to Centrica, with this non-Centrica share rising to 77 per cent if Centrica were allowed to reserve only 25 per cent of Rough capacity to itself were taken into account. Centrica also drew attention to the following factors:

- for approximately 50 per cent of its beach gas supply, either Centrica had to take the contracted amount or the producer was entitled to sell the gas into the market;
- 'use-it-or-lose-it' provisions applied to interconnector capacity and storage bookings;
- self-interruption was possible for a number of customers;
- the DTI had previously reported that gas producers had both the incentive and the ability to undermine any attempts by Centrica to increase winter prices; and

— supply responses by other gas producers (use of existing and introduction of additional beach swing), changes in demand (including interruption and self-interruption) and greater inter-connector inflows would operate against manipulation of market prices.

Centrica said that, in total, about 30 per cent of its sources of flexibility was subject to arrangements whereby, if Centrica did not use them, they were available to the market.

6.88. Although Centrica acknowledged that gas from Morecambe could in principle be withheld from the market, it told us that in practice there were severe regulatory and other constraints that would prevent it from doing so.

6.89. First, there would be difficulties with the Exchequer, which would receive reduced tax revenues on Morecambe production. Centrica explained that, where there were contracts between gas producers and third-party gas buyers, the OTO assumed that a fair price for the gas would be struck, and accordingly that the level of tax collected was at an appropriate (ie fair) level. When the producer and buyer were within the same company, the OTO aimed to mirror independent negotiations through a fair arm's-length contract that, if adhered to, would also result in an appropriate level of taxation. In the case of Morecambe, Centrica had achieved this by agreeing a long-term tax election with the OTO, with price formulae that referred to gas market prices. Centrica told us that the intra-group gas sale and purchase contracts for North and South Morecambe provided for the contractual maximum rates of delivery to be nominated annually 12 months before the start of each contract year. The contract terms required that the rates were the maximum that could be achieved from the Morecambe fields. The contracts were approved by the OTO.

6.90. Centrica said that the OTO would question any apparent anomalies in supply of gas from Morecambe that might suggest that the contract was not being observed or that the terms no longer reflected fair value. Sometimes the reason for the apparent anomaly would be clear, but there would be unlikely to be a sensible explanation for withholding substantial volumes from Morecambe in the middle of winter. Centrica told us that, for both North and South Morecambe, the OTO had the power to revoke the price elections if at any time the manner, pattern or extent of gas supply changed such that, had the OTO known about the changes at the time it agreed to the election, it would not have granted it. A reduction of 25 per cent in winter output would reduce the level of tax payable to the OTO and would, in Centrica's view, constitute a change that would give the OTO grounds for revoking the election. Centrica submitted that the potential for revocation and the uncertain outcome of such revocation provided a considerable constraint on its ability to change production profiles at Morecambe, either through withholding annual or winter gas production or rescheduling production from winter to summer. Centrica also said that understating the maximum flow rates in any year would result in other damaging outcomes: either higher levels of tax or greater value destruction than that calculated by Lexecon.

6.91. Second, Centrica was under regulatory scrutiny from the DTI, which received regular reports on the exploitation of all UKCS gas fields, and from Ofgem, which had oversight of the wholesale gas market. Centrica said that as part of its annual field report and through the monthly petroleum production reporting system it provided the DTI with field production forecasts and actual flow data for Morecambe. (Actual flow data was also provided to the OTO through the petroleum revenue tax returns.) Centrica told us that forecasts of future Morecambe flows would pre-date its acquisition of Rough and could be used by Ofgem and/or the OFT to compare against future notified contractual maximum flow rates. As the decline of the Morecambe fields was relatively constant, in percentage terms, any attempt to reduce nominated flows to the extent suggested would be obvious if the comparison were made.

6.92. Third, the output of Morecambe, via the Barrow terminal, was highly transparent 36 hours later as gas flowing through the Barrow terminal came almost entirely from Morecambe. The Transco declaration of demand, made in advance, was also highly visible. Centrica said that it would have to withhold a substantial proportion of Morecambe's peak output in order to have a significant impact on the market, and it would not be possible to do this unnoticed.

6.93. Centrica also told us that the remuneration of a number of its senior managers was linked to the achievement of performance indicators concerned with maximizing the availability of its equity gas fields. Centrica said that a strategy of withholding gas would be in conflict with those incentives and could not therefore be pursued surreptitiously.

6.94. Centrica said that its reputation for fair dealing and value was crucial to its success. Its behaviour and pricing were subject to constant and publicized scrutiny not only by regulators but also by

competitors and consumer groups. Any attempt it made to pass on to consumers wholesale price increases brought about by withholding capacity would be apparent and would do huge and lasting damage to Centrica's brand. The loss of domestic customers following a price increase would be considerably greater if it appeared that Centrica had been responsible for causing the increase. Centrica could not risk losing customer goodwill by attempting to manipulate prices.

Issue (ii) Whether Centrica has the incentive and ability to discriminate between customers in the terms on which it makes Rough capacity available.

6.95. Centrica said that it intended to continue with the SSC for Rough, the terms of which applied equally to all customers, were non-negotiable, prevented Centrica from discriminating between customers and covered both firm and interruptible capacity. The terms were familiar to customers and were publicly available on the CSL web site. Centrica added that, as a storage operator, it was required by the Petroleum Act to provide third-party access on non-discriminatory terms.

6.96. With regard to issues of operational discrimination, Centrica had, from the outset of the acquisition process, indicated its willingness to give an undertaking that rigorous arrangements would operate to separate the Rough storage business from Centrica's other businesses. Since the acquisition, Centrica had operated as though such an undertaking were already in place. It had issued a code of conduct to employees that:

- (a) prohibited the disclosure by the Centrica Storage business of commercially sensitive information to other parts of Centrica carrying on gas supply, shipping, trading or storage procurement activities;
- (b) prohibited solicitation of such information from the Centrica Storage business by other such parts of Centrica; and
- (c) prohibited the Centrica Storage business from unduly discriminating between requests for storage services and, in particular, from giving Centrica preferential treatment (and prohibited solicitation by Centrica of such preferential treatment from the Centrica Storage business).

6.97. Centrica argued that any discrimination between customers would be immediately apparent in the wholesale markets, because of their liquidity and the transparency of trades (ie if Centrica were to buy/sell large volumes of gas preceding an announcement from CSL on Rough operations). It believed that action by Ofgem under the Petroleum Act, competition law and/or contractual action by customers would be likely to result.

6.98. We put to Centrica the possibility that it might discriminate in order to harm its competitors in downstream markets, principally the domestic supply market, so as to weaken their ability to constrain its prices. Centrica said that it would not know until well after the event which of its downstream competitors was winning its customers, and indeed it might never know. This information was not available through the switching process. It acknowledged, however, that, through market research, it had some idea of which suppliers were winning customers and which were losing.

6.99. We also raised the possibility that, because of the regional structure of the domestic electricity market, Centrica could target an individual competitor. Centrica said in response that, because of its dominant position in the domestic gas market and the linkage, through the dual-fuel discount, with the domestic electricity market, it was prevented by the Competition Act from discriminating on price between gas customers, whether they bought gas only or gas and electricity.

Issue (iii) The effects of issues (i) and (ii) on wholesale gas prices.

6.100. Centrica said that it did not have the ability to increase the summer/winter differential. Its existing contracted share of sources of flexibility did not confer significant price-setting ability, in particular as the sources Centrica could actually withhold from the market were only a sub-set of its contracted sources. Furthermore Centrica accounted for only 11 to 12 per cent of gas production in the UK. It was to be expected that attempts by Centrica to increase winter prices would be undermined by competition from large players such as Shell, ExxonMobil and BP and others which did not have downstream supply activities, for example Conoco. Centrica added that the Bacton interconnector had brought prices closer into line with north-west mainland Europe. Attempts to raise prices would also be undermined by increased field production and inflows through the Bacton interconnector.

Issue (iv) Whether Centrica's access to operational and customer information concerning Rough gives it an unfair advantage in the market(s) for flexible gas and in downstream markets.

6.101. Centrica accepted that the operator of Rough had access to information that could give it an advantage in trading and supply markets: for example, advance notices of outages could enable it to move to acquire substitute sources of flexibility before its competitors, and information on individual customers' bookings and nominations of Rough capacity could give it an insight into their trading strategies and operational difficulties.

6.102. Centrica told us, however, that even during due diligence it took care to ensure that no Centrica employee from the gas supply side of its business had access to the details of individual bookings from Rough storage customers or other commercial information. (This part of the due diligence exercise was carried out by external advisers.) Centrica Storage Holdings Limited had been created as a new subsidiary company to hold shares in DSL and DOPUL. It was a wholly-owned subsidiary of GB Gas Holdings Limited, which was in turn a wholly-owned subsidiary of Centrica. The companies held under Centrica Storage Holdings Limited undertook all commercial and operational activities associated with the Rough storage asset, and comprised the Centrica Storage business. Centrica's supply activities were undertaken by CEMG on behalf of BGT and Accord.

6.103. Centrica had previously experienced the operation of a separation regime, from the period when BGT and Transco were under common ownership. It had current experience of the operation of a gas transportation business separate from gas supply. With Rough, it had considered each component of the facility as purchased, the type of data that might exist in each component and the ongoing operation and management by the Centrica group. It had paid particular attention to safeguarding specific information relating to the storage business.

6.104. The commercial team responsible for selling capacity in Rough was located in Staines (see paragraph 4.167). Centrica said that, as well as this physical separation from its supply activity, which was based in Slough, the commercial team had been ring-fenced with the code of conduct prohibiting disclosure of commercially sensitive information between divisions. Centrica told us that the storage employees concerned were accustomed to working within a separation regime. It said that there were provisions in the code of conduct to ensure that other commercially sensitive information relating to Rough, such as operational and nomination data published via STORIT, was not made available to BGT ahead of the rest of the market.

6.105. Centrica recognized that data concerning the day-to-day operation of the Rough platform could be of short-term benefit to its trading function. Centrica's arrangements for protecting such data are described in paragraph 4.162 and its arrangements for handling shared services are described in paragraphs 4.164 and 4.165.

6.106. Centrica had also considered how a catastrophic or potentially catastrophic event (such as a collision with the Rough platform or a fire) should be handled. It had decided that, to prevent BGT gaining a commercial advantage, CSL would ensure that all customers were informed simultaneously via STORIT. In addition, emergency response procedures had been designed to avoid news passing to BGT sooner than it was made publicly available.

6.107. Centrica told us that face-to-face briefings on the separation and the code of conduct had been held with the staff now based in Staines, Easington and Slough. The briefings at Slough had been to ensure that staff would not solicit information relating to Rough or request preferential treatment from Centrica Storage.

Issue (v) Whether, as a consequence of Centrica's ownership of Rough in addition to its control of other sources of flexibility, there is—or could be—insufficient information available to other companies to enable them to operate efficiently within downstream markets.

6.108. Centrica said that it was unclear how this concern related to the merger. It told us that CSL already published aggregate customer nominations four times each day and that no other facility provided customer or operational information to third parties. It added that transparency of information was already the subject of wide-ranging industry consultation in which Centrica was willing to participate.

Issue (vi) Whether Centrica would lack the incentive to innovate in the management of Rough, eg in the range of products and type of contracts offered to customers.

6.109. Centrica said that it was keen to innovate in the management of Rough through the provision of storage services on a range of terms, including the option to price contracts to future summer/winter differentials. It was motivated to do so by the prospect of creating more value in Rough. Some of its customers that might benefit from innovations were not downstream competitors but in any event there would be an incentive for CSL to offer new products to competitors without consideration of any effect on Centrica's retail business. Centrica said that its willingness to extend the SSC would preserve the existing 'use-it-or-lose-it' arrangements, specifically, as well as the standard terms and conditions that both ensured non-discrimination of access and information, and facilitated trading on the secondary market. It believed that innovation was possible notwithstanding continuation of the SSC.

6.110. Centrica suggested that excessive regulation was the greatest threat to innovative storage solutions. It added that a remedy based on mandating a significant allocation of capacity on long-term contracts at prices not indexed to the gas markets would risk distorting the market, given the reluctance or inability of many buyers to commit to lengthy fixed-price contracts. Denying customers who wished to enter price-indexed contracts the ability to do so (as Ofgem sought to do) would, in Centrica's view, represent undue regulatory interference and be contrary to the interests of the market.

Issue (vii) Whether Centrica would lack the incentive to invest in increasing capacity at Rough, whether in injection or delivery rates or in amount of storage space.

6.111. Centrica pointed out that, in the last ten years, neither BG nor Dynegy had invested to increase capacity at Rough. Indeed, through its sale of cushion gas BG had undermined Rough's deliverability of 455 GWh a day. Centrica said that Dynegy had also failed to invest in capacity expansion in the year during which it owned Rough, and had sold the facility to Centrica with a 47,000-hour maintenance backlog, some of which related to safety-critical equipment. On acquiring Rough, Centrica became aware that Dynegy had planned to move some gas through the pipe from Rough to the Easington terminal without passing it through the 47/3B dehydration process. Although this would enhance delivery, the resulting wet gas would potentially have corroded the pipe and seriously compromised the asset. Centrica had, therefore, deferred the project until a full feasibility study could be carried out. That study had been carried out in early 2003 and the bypass project had been initiated in March of that year on a trial basis.

6.112. Centrica said that it had several incentives to invest at Rough. First, its existing contractual liabilities on deliverability pursuant to the SSC exceeded the physical capabilities of the asset. It had to manage this shortfall by buying gas on the market, most often on high-priced days; the cost of this could be expected to increase in the future with market prices. Centrica, therefore, had an incentive to invest to reduce its exposure to future market prices. Second, there was no doubt that Centrica's flexibility options would get tighter over the next few years as the amount of beach swing declined. It would, therefore, need to find new sources of flexibility. Third, the expected increase in overall demand for flexibility gave Centrica at least the same incentive to invest as any other owner in order to bring further flexibility to the market ahead of competing sources and make profits from it. Centrica commented that its expertise in managing offshore facilities enabled it to identify sound projects to expand Rough's capacity. Another owner might not have the same ability. For example, neither Dynegy nor BG had identified the opportunity to increase deliverability by re-perforating wells. Centrica intended to re-perforate four wells in the winter of 2003/04.

6.113. Centrica believed that a financial buyer of Rough would be looking for a significant rate of return, typically in excess of that required by Centrica, in order to justify its investments. Such a buyer would, therefore, be less likely than Centrica to invest in improvements or expansion at Rough.

6.114. The proposal by Ofgem for mandatory sale of the majority of capacity on a long-term basis with no possibility of indexation would, in Centrica's view, significantly distort investment incentives for itself and other storage operators. Assuming that such a proposal were adopted and Centrica were forced to sell a large proportion of Rough capacity on long-term (five years +) contracts without gas price indexation, the prices achieved for this capacity would be lower than if it had been sold on an indexed basis and/or on rolling one-year contracts. First, the forward market lacked liquidity and thus there was no clear measure of the forward summer/winter differential for the next five years from which to determine the future value of storage. Buyers would thus discount their bids to account for price and time

risk. Furthermore, few buyers would be in a position to contemplate the huge financial commitment involved in signing a long-term contract. For these reasons, demand for such contracts would be low and the price would be likely to be below the expected average price of future sales of shorter-term contracts. In that sense Centrica would fail to realize the value of its asset. Centrica might be inhibited from investing if it feared that similar regulation would be applied to any newly-created capacity.

6.115. Such a remedy might also generate problems in relation to investment by other potential builders of storage facilities:

- (a) Low prices on long-term capacity sales would give a misleading picture of the future value of storage. Potential storage operators might be uncertain about the future value of storage, especially with lower liquidity in the forward market stretching ahead several years. Prices for fixed-price long-term capacity sales were one measure of this value. If realized prices were low, potential operators might think the value of storage in the future was genuinely low, rather than that the prices for this capacity were below likely future levels because of the supply/demand imbalance with long-term contracts.
- (b) It was difficult to hedge the costs of new investment. When making an irreversible investment in a facility, it was common for the investor first to get buyers to sign long-term contracts, in order to give some assurance that its costs would be recovered. Centrica pointed out that the builders of the Bacton interconnector had done precisely that. It was likely that investors in new storage facilities would want to sign long-term contracts before making the investment (as was reportedly the case in respect of Humbly Grove). Centrica said that, if it was forced to sell long-term contracts and prices were low, it would be difficult for builders of new facilities to persuade buyers to sign long-term contracts at realistic prices (even if everyone knew that the Centrica capacity was selling out at way below true value: potential buyers would not agree to pay more if capacity was available so cheaply). Even once the Centrica capacity was sold out there could still be a problem, as likely buyers for such long-term capacity would already have had much or all of their long-term requirements satisfied.

With these obstacles, investment in new storage facilities by other operators could be seriously inhibited, even if the economic fundamentals (in terms of the demand for flexibility in the future) justified such investment.

6.116. Centrica told us that it had carried out extensive work on the Rough facility since acquiring it and had committed £2.8 million to be spent over the budgeted amount for 2003 to cover personnel and spares for the maintenance backlog and transition.

6.117. Centrica said that its asset operations and health and safety record on the North and South Morecambe fields was excellent over the past seven years since the demerger from British Gas plc. In addition, it had successfully supported another company in developing production facilities at neighbouring fields. There had also been considerable development of assets in the Morecambe area, including the installation of 50 MW of onshore compression at a cost of £50 million producing an 18 per cent increase in deliverability, the drilling of three further development wells and the reperforation of wells on most platforms to increase productivity. Innovative techniques had been used.

6.118. Centrica said that this record was evidence of the strong asset management and development capability within the company. It intended to use this skill base to enhance the capability of the Rough storage facility as quickly as possible. Immediately after the acquisition, it had implemented a programme of changes in organization and management focus, together with target setting and project approval (revenue and capital), in order to maintain and enhance asset performance. (See paragraphs 4.169 to 4.172 for a summary of progress to date.) Centrica said that its investment plans would need to be reviewed for feasibility and their effects on asset integrity, but the most probable development scenario would result in a progressive increase in Rough's capacity (injection and withdrawal rather than space) of between 5 and 10 per cent by 2008.

6.119. Centrica told us that it had offered to share with Ofgem its investment and development plans for Rough on a regular basis. It commented that Ofgem's proposal that any new capacity at Rough would be outside the scope of any undertakings required of Centrica would give it an increased incentive to expand.

6.120. In Centrica's view the gravest threat to new investment in Rough would continue to be inappropriate and disproportionate regulation. If it were required to sell capacity at below market value (through the forced sale of long-term capacity), the cash flow to fund investment would be reduced.

Issue (viii) Whether the merger would increase the risks and uncertainty faced by Centrica's competitors, and by potential entrants, in gas storage and downstream markets.

6.121. Centrica maintained that the merger had reduced risk and uncertainty in the flexibility market. Because Centrica was unable, and had no incentive, to increase the summer/winter differential, the merger had led to no greater risk for other players in the market. Furthermore, Centrica's commitment to innovation and investment was beneficial for the flexibility market.

6.122. For the reason outlined in paragraph 6.7, Centrica believed that its acquisition of Rough had resulted in increased security of supply as well as removal of the uncertainty and credit risk associated with ownership by Dynegy. The continuation of a Security Trust Deed that had been put in place by Dynegy in 2002 to protect customers' gas in store, together with Centrica's investment grade credit rating, should give customers the confidence they were seeking.

6.123. Furthermore, Centrica told us that a deferred prohibition notice issued by the HSE to DSL in relation to the Rough facility had been lifted as a result of actions taken by Centrica since the acquisition (see paragraph 4.141 for further details). Had this not been done and the prohibition notice had been made final, the facility would have had to close during the critical winter period.

6.124. Centrica observed, from the responses to Ofgem's and the OFT's consultations, that its downstream competitors generally thought that the merger should be allowed to stand, subject to certain undertakings (specifically with regard to access to Rough's capacity and separation of the storage business from Centrica's other businesses), and that Rough customers who were downstream competitors of Centrica were reassured by the financial stability and creditworthiness of Centrica as the operator of Rough. Centrica reminded us that it had been willing to give an undertaking to make a minimum 20 per cent of Rough's capacity available on annual contracts, to enable new entry.

6.125. Centrica said that vertical integration and separation arrangements were common in offshore oil and gas and in the electricity sector. It did not believe that its vertical integration should give rise to any concerns in the context of the merger.

Issue (ix) Whether competition, or the lack of it, in downstream markets is such that Centrica would be able to pass on to customers any increases in the wholesale price of gas.

Issue (x) Whether, alternatively or additionally, Centrica would be able to put a margin squeeze on its less vertically integrated competitors, particularly in the retail supply of gas to domestic customers, and whether any such squeeze would also restrict entry into downstream markets.

6.126. Centrica reiterated that it had neither the ability nor the incentive to increase the summer/winter differential and thus the price of Rough or other sources of flexibility.

6.127. Centrica maintained that the downstream gas supply markets were competitive. It said that its overall market share had fallen to 36 per cent of gas delivered to end-customers. Its share of the domestic market was 64 per cent, and appeared to be levelling out in the low 60s per cent, but that market was now fully competitive with around 70,000 domestic customers a week switching supplier. Ofgem had confirmed the competitiveness of this market by removing all remaining price controls. Centrica said that, although it did not know the details, it was reasonable to assume that its competitors in the domestic market would be hedged against an increase in the wholesale price to the same extent as itself: consequently Centrica would be able to pass on to domestic customers only the increase in its own procurement costs. Centrica's share of the non-domestic gas market (including power generation) was 20 per cent, and the incidence of customer switching in that market was also high.

6.128. Each time Centrica implemented an increase in gas retail prices, the outcome was that it lost both gas and electricity customers. Centrica told us that pass-through was not possible in LTI contracts and in other cases was likely to occur only with some delay because contract prices tended to be renegotiated no more frequently than annually. During the time lag there was a cost that had to be borne by the supplier. This was particularly the case in the domestic market, where price increases were implemented typically once a year.

6.129. Centrica said that supply to domestic gas and electricity customers was converging towards a single market. Its own churn data showed that in the domestic market it had lost both gas and electricity customers after implementing a gas price rise. Given its focus on customer retention to implement its strategy of cross-selling a range of products, customer losses were especially costly to Centrica. Ascribing a value per customer of around £300 (see paragraph 5.19), estimated additional losses of [X] gas customers in 2001, [X] in 2002, and an expected loss of [X] in 2003 (based on past experience) meant that Centrica incurred an additional implicit cost of several million pounds following each price increase.

6.130. Centrica also told us that it tended to lose share when it put prices up even if other suppliers followed, although the timing of the price increase relative to rivals affected the level of customer losses. For instance, Centrica's estimated additional loss of [X] customers immediately following the 2002 price rise—when it was one of the first suppliers in the domestic market to implement a price rise—implied a cost of over £[X] million, compared with lower losses in 2001 and 2003 when Centrica was in the middle of the pack. Furthermore, the rate at which it had acquired new electricity customers had fallen sharply following the increases in 2001 and 2002. Centrica pointed out that the magnitude of its customer losses was clearly related to the magnitude of each price increase: the greatest loss of customers had been in 2002 (when the price increase was 5.3 per cent), followed by 2001 (4.7 per cent) and 2003 (2.5 per cent). The loss of customers following the 2003 price increase was still substantial even though the increase had followed larger increases made by two of Centrica's leading competitors and had been the smallest increase of all the leading suppliers.

6.131. Centrica added that its actual pass-through of the increase in wholesale gas prices since 2000 (taking account of the three retail price increases) had been [X]. It also estimated that the administrative cost to itself of implementing each increase in domestic gas prices was around £[X] million. Centrica added that while in the past its domestic gas prices had tended to be of the order of 8 to 10 per cent higher than those of its competitors, this premium had been falling and was down to around 7 per cent following the latest round of price increases. The gap had closed because competitors had increased prices by more than Centrica had done.

6.132. Centrica said that, with regard to domestic electricity supply, it had adopted a low-price entry strategy in 1998 in order to penetrate the market and build market share. It had been able to price low because it was not burdened by long-term fixed-price contracts and was able to anticipate the reduction in wholesale electricity price as a result of market movements. This pricing approach, coupled with decreases in market entry and wholesale electricity costs, resulted in positive net electricity margins being earned from 2001. Centrica was now making positive net margins in both gas and electricity. It believed that some of its competitors were making positive net margins in gas. It also believed that each of its competitors had high margins in the supply of electricity in areas where it had been the incumbent supplier. This would have allowed competitors to sustain negative margins in gas (and electricity supplied out of area) as part of a post-entry strategy to gain market share.

6.133. Commenting on the suggestion that it would be able to put a margin squeeze on competitors, Centrica said that such a squeeze would involve increasing wholesale costs and at the same time holding down retail prices, so as to reduce the margin earned by competitors. The first of these was similar to the question of an increase in wholesale prices, which, as it had already explained, Centrica would have no incentive to implement. Moreover, combining this with holding down the retail price, ie with no cost pass-through, would inflict a high cost on Centrica itself, making this a highly undesirable strategy. It would mean that a margin squeeze could be a remotely rational strategy only if wide-scale exit from the gas supply market could thereby be induced. Centrica's competitors in this market were themselves large companies active in the energy market and electricity incumbents: this fact, combined with the importance of dual fuel offerings in the market, made it difficult to conceive that such exclusion could be achieved. There was therefore no basis for Centrica to engage in a margin squeeze. Centrica agreed, however, that new entry into the domestic gas supply market was in any case unlikely, given the current low margins available, and some further consolidation among existing players was possible.

Issue (xi) Whether any competition issues arise as a result of Centrica's acquisition of the Easington terminal.

6.134. Centrica said that the third-party gas processing activities of Easington did not prejudice the operation of Rough, because there were separate processing trains for gas from Rough and from the Amethyst field; there was no co-mingling of gas from Rough with gas from other third-party fields; and gas from Rough was given priority through covenants and contractual arrangements.

6.135. Centrica told us that it had no ability or incentive to withhold access to Easington. Any concern that, through owning Easington, Centrica could thwart the landing of new gas supplies was wholly misconceived, for several reasons:

- (a) All terminal operators were required to make spare processing capacity available to the market by publishing tariffs at competitive levels and negotiating in good faith.
- (b) CSL was currently negotiating processing agreements to take gas from the Helvellyn and Rose fields.
- (c) Easington was one of several potential landing sites for new gas, so no issue of monopoly arose.
- (d) Centrica was keen to secure additional processing income; this would not amount to control of swing since that was a matter for the buyers and sellers of the gas, not the processor.

Issue (xii) Whether any of the possible adverse effects identified in public interest issues (i) to (xi) would be exacerbated by foreseeable developments in the market in the next few years.

6.136. Centrica said that future developments (for example, a decline in beach swing, the prospect of Great Britain becoming a substantial net importer of gas, the expiry of Centrica's LTI contracts), would be likely to result in a reduction in its control of gas flexibility. To the extent that the merger did give rise to adverse effects (and Centrica submitted that it did not), these developments would not exacerbate them, but would rather highlight how short term Centrica's apparently high market share of flexibility really was.

6.137. Centrica strongly disagreed with Ofgem's view that much of Centrica's current capacity to supply winter gas or to respond flexibly to changing daily conditions was likely to persist for the longer term. It also disputed Ofgem's comment that there was no prospect of these market share figures being significantly eroded for at least the next seven years.

6.138. Centrica also noted that it could potentially infringe the FSMA were it to misuse the information it would have as owner of Rough. Centrica, through Accord, was active on the IPE natural gas market (which was a benchmark price for much OTC trading). Behaviour on this market in withholding flexible gas in order to raise prices could also amount to a market abuse.

6.139. Centrica submitted that the withholding of flexible gas to increase prices could infringe paragraph 2(b) of standard condition 3 of the gas shipper's licence, namely the obligation not to pursue any course of conduct likely to prejudice the economic and efficient balancing of the system. A breach of a licence condition would expose the licensee to the risk of financial penalties and remedial, behavioural directions.

6.140. In Centrica's view, the sanctions under the FSMA regime (unlimited fines for responsible companies and individuals) and Ofgem's ability to enforce shipper's licence condition 3 undermined any incentive to withhold flexible gas and, in relation to the FSMA regime, to misuse sensitive information relating to the operation of Rough.

Remedies

Undertakings offered by Centrica

6.141. Centrica said throughout the merger process that it had recognized that its acquisition of Rough would need to be subject to some degree of regulatory intervention and remedial action, as had been a feature of ownership of Rough in the past. It believed that it had been close to agreeing an acceptable package of remedies with Ofgem and the OFT before the merger was referred to the CC. It therefore proposed remedial undertakings designed to address concerns that might arise from the merger, which during the course of the inquiry were further developed.

6.142. With regard to its own access to Rough storage, Centrica said that it was willing to give the following undertakings:

- to withdraw from participating as a buyer in the primary selling market for Rough storage capacity (so that it could not be accused of distorting the prices paid by customers);
- to reserve for its own use an amount of Rough capacity not exceeding 25 per cent of total capacity (this being at the lower bound of the amounts purchased by Centrica as an independent buyer in recent years);
- to sell the remaining capacity to third parties on a fair, open and non-discriminatory basis with at least 20 per cent sold on one-year terms and the remainder offered on a longer-term basis;
- to extend the existing SSC which included robust ‘use-it-or-lose-it’ provisions; and
- to obtain any additional Rough storage rights it might require in the secondary market, where it could trade without restriction.

6.143. In addition, Centrica said that it was willing to offer the following remedies:

- Morecambe to be fully utilized by Centrica when forecast demand for gas exceeded 68 per cent of peak day demand (as forecast by Transco) for the current gas year;
- Sean gas to be fully nominated by Centrica when forecast demand for gas exceeded 85 per cent of forecast peak day demand (as forecast by Transco) and the then prevailing market price exceeded the Sean contract price; and
- Sean gas to be nominated at 50 per cent of the contractual maximum rate of delivery by Centrica when demand for gas exceeded 77 per cent of forecast peak day demand (as forecast by Transco) and the then prevailing market price exceeded the Sean contract price.

Centrica commented that those undertakings would provide reassurance to the market that the price of Rough capacity would not be artificially pushed up by Centrica withdrawing sources of flexible gas at times when they would normally be used (and were used prior to the acquisition of Rough) even if Centrica had an incentive to do so, which it disputed. These undertakings differed slightly from those previously offered to the OFT.

6.144. Centrica told us it had always recognized that there would be a need for separation of the gas storage business from the parts of its business that traded in or supplied gas. It had stated its willingness to give undertakings to that effect and was operating as though such undertakings were already in place.

6.145. Centrica said that there were two matters, in particular, that it had been unable to resolve in its discussions with Ofgem and the OFT.

6.146. The first concerned the amount of capacity at Rough that it would be appropriate for Centrica to reserve for its own use. Centrica had originally suggested a level of 25 to 31 per cent, which was consistent with its historic levels of use. Ofgem, however, initially proposed a level of reservation of 10 per cent, although it later indicated that a limit of 15 per cent would be acceptable. Centrica had argued that limiting the amount it could reserve to less than 25 per cent would be a disproportionate remedy, because over the four years 2000/01 to 2003/04 it had booked 25 to 30 per cent of Rough’s capacity. These levels resulted from competitive bidding in the primary and secondary markets and could be expected to reflect the relative valuations placed on Rough storage by Centrica and rival bidders.

6.147. Centrica said that, in setting its appropriate level of reservation for the future, the ideal solution would be to ensure that it was allocated the amount it would have won as an independent bidder, thus replicating the competitive outcome. That would, however, be a difficult task, since the level would depend on the relative valuations placed on Rough capacity by each purchaser at each moment in time, and each valuation would be known only to the individual bidder concerned, not to the regulator. Centrica suggested, therefore, that it would make sense for it to be given a reserved amount at the lower bound of what it could expect to win as an independent bidder, ie 25 per cent. This would be sufficient to ensure that it did not distort the Rough sales process. Centrica said that it was efficient for it to obtain its flexibility from a portfolio of sources, in view of the differing characteristics of each source and the risk of outages of individual sources. It added that ‘use-it-or-lose-it’ provisions would assure other users and potential users that Centrica could not withhold any of this capacity from the market.

6.148. The second unresolved matter concerned the sale of capacity on long-term contracts with no indexation to gas market prices. Centrica's concern was that a remedy requiring sale of a significant amount of capacity on that basis would risk distorting the market, for the reasons outlined in paragraphs 6.110 and 6.114.

6.149. Centrica said that, even if it believed that the future value of storage would be high, it would be reluctant to invest if it found itself unable to realize a sufficiently high proportion of this value to cover its investment costs, either because buyers discounted their bids to account for long-term price risk or because there was insufficient demand for long-term contracts.

6.150. Centrica acknowledged that long-term contracts were not in themselves harmful to investment and, indeed, were often signed before an investment project was undertaken in order to hedge the risks. It argued, however, that contracts entered into after an investment had been made—as would be the case here—would not serve to hedge the investment risk and, if sold at low prices, could potentially undermine the recovery of investment costs. Specifying that a large proportion of capacity had to be sold on a long-term basis would run the risk of setting a requirement in excess of the market's demand for such terms.

6.151. For those reasons, Centrica, in discussions with Ofgem and the OFT, had not been prepared to offer an undertaking to sell a specified proportion of capacity on a long-term basis. It told us, however, that it was prepared to undertake to offer for sale up to 55 per cent of capacity on long-term contracts provided that it could do so on a range of terms with the option to price contracts to future summer/winter differentials and provided that, as long as the capacity was offered for sale, it did not have to be sold if there was insufficient interest, but instead could be made available on short-term (including one-year) contracts.

6.152. Centrica noted that Ofgem was opposed to the sale of long-term indexed contracts, despite the fact that customers had expressed an interest in such contracts. In Centrica's view, denying customers who wished to enter such contracts the ability to do so was undue regulatory interference and contrary to the interests of the market. Centrica said that it could sell only the contracts that its customers wanted to buy: if many of them wanted gas price indexation for long-term contracts in order to manage their risks, it would be difficult to sell only unindexed contracts.

Comments on CC's hypothetical remedies

6.153. Centrica said that the principal adverse effects of the merger suggested by Ofgem (other than those that would apply to any owner of Rough and those relating to purely vertical concerns) had been postulated on the basis that Centrica had an incentive to manipulate the price of flexible gas. However, the analysis carried out by Lexecon for Centrica (see Appendix 5.5) had demonstrated that in all reasonable hypothetical situations it would be unprofitable for Centrica to withhold flexibility from the market by forgoing use of its sources of flexibility. At the very least, this would be a high-risk strategy such that Centrica could not reasonably be expected to pursue.

6.154. Centrica said it accepted that some regulation of Rough was necessary irrespective of who owned it. To the extent that we might conclude that remedies were required as a result of the merger, Centrica believed that these needed to go no further than those that would be required of any owner of Rough. The operation of EC and UK legislation required the owner to provide open, fair and non-discriminatory access to third parties: in addition, previous owners had given undertakings, for example on separation, which Centrica had indicated that it too was willing to give. Further, it was ready to accept conditions, as set out in paragraphs 6.142 and 6.143, which it believed would address in a proportionate manner all reasonable concerns arising from its ownership, whilst avoiding excessive regulation that would be unduly burdensome or likely to distort the market.

6.155. The following paragraphs record Centrica's comments on the hypothetical remedies set out in our remedies statement published on 8 May 2003 (see Appendix 2.2) and as developed in subsequent exchanges with Centrica. The remedies are numbered as in that statement.

CC's hypothetical undertakings

1(a)i The current nominal capacity of Rough (ie 455 GWh/day deliverability, 30,300 GWh space, 160 GWh a day injectability) would continue to be sold as 455 million SBUs.

6.156. Centrica said that it agreed in principle to this proposed undertaking, even though other storage operators (for example, SSE, Transco) had no such obligation at their respective facilities. It represented no greater regulation than had been in place for Rough to date (under BG's or Dynegy's ownership) and would provide ongoing assurance to customers. Furthermore, Ofgem agreed that this undertaking should continue. Maximum capacity had traditionally been defined as described in the proposed undertaking and Centrica was happy to confirm that definition. Although the contractual rate of 455 GWh a day of deliverability exceeded Rough's physical withdrawal capacity, Centrica was content for CSL to be bound by that level of deliverability, because customers were used to it. Centrica said that, in addition, it would be prepared for CSL to sell extra space capacity, created through BG's sale of cushion gas, on an unbundled basis subject to a 25 per cent reservation to Centrica. (This was prior to proposal of the further hypothetical remedy described in paragraph 6.163.) We suggested to Centrica that the SBUs could be revised to reflect the change in space available at Rough as a result of the sale of cushion gas, but it said that customers appeared to be happy with the current definitions. It believed it would be preferable to offer customers flexibility by making the additional space available separately.

1(a)ii A specified minimum percentage (perhaps 80 per cent) of nominal capacity would be made available to third parties. Centrica would be able to reserve the remainder for its own use—the level would be set somewhat below Centrica's normal usage of Rough in order to give it an incentive to expand Rough's capacity. Centrica would not participate in any primary sales processes but would be able to purchase any additional requirements in the secondary market.

6.157. Centrica said that an allocation of 25 per cent for its own use (which was less than its likely demand) would constitute a proportionate remedy. It was, however, prepared to accept 20 per cent and to purchase any additional requirements in the secondary market. This would mean that more capacity would be available to third parties than before. For the 20 per cent of Rough capacity reserved to it, Centrica would be prepared to pay the weighted average price for all one-year sales, irrespective of the sale process. Furthermore, should it not require the full proportion of Rough capacity reserved to it, Centrica would be prepared to notify CSL three months before the start of each storage year, so that the surplus capacity might be sold to third parties on the primary market.

6.158. Centrica said that, as noted in paragraph 6.147, it was efficient for it to obtain its flexibility from an optimal portfolio of different flexibility sources. In its view, therefore, a reservation of Rough capacity for its own use limited to 10 or 15 per cent would be a disproportionate remedy. Ofgem had proposed an upper limit of 15 per cent: that was clearly disproportionate. Even on Ofgem's analysis that Centrica's reservation should be at least 10 per cent below its recent and likely future requirements for Rough capacity, the upper limit would be 20 per cent, not 15 per cent. Ofgem had suggested that a limit of 15 per cent would give Centrica a greater incentive to expand capacity at Rough than if it was allowed to reserve a larger proportion of existing capacity. However, Centrica told us that its investment plans were focused on maintaining the integrity of the Rough asset and making further developments where feasible. Aside from York, planned developments would not materially increase the space capacity of Rough. Centrica was therefore unlikely to secure the additional storage that it required, over and above a threshold of 15 per cent, by investment in Rough alone.

1(a)iii The nominal capacity could be reviewed after some time—perhaps five years—in order to ensure that additional capacity was made available to the market after a reasonable period. In the meantime any such increases in capacity could be reserved for Centrica's use.

6.159. Centrica said that it agreed in principle to a review of Rough capacity (excluding York) after five years. It would be prepared to offer a review of, and third-party access to, York capacity five years from the date the field was converted to a storage facility.

6.160. Centrica agreed that the opportunity to retain additional capacity at Rough would provide an incentive to invest, as Ofgem had recognized. However, Ofgem appeared to believe that reviewing Rough capacity in five years' time would diminish Centrica's incentive to invest in expansion of capacity. Centrica disputed this. The suggested remedy would still maintain incentives on Centrica to invest, while ensuring that maximum available capacity became available for use. Centrica added that

significant capital investment in Rough was needed simply to maintain the asset and its integrity. It would be happy to provide Ofgem with details of ongoing maintenance and capital investment in Rough.

6.161. We proposed a further remedy in this area to Centrica under which the nominal capacity of Rough would be set at 455 million SBUs plus the additional space, created as a result of the sale of cushion gas, currently available. Centrica would be able to reserve 20 per cent of that capacity for its own use for the storage year 2004/05, reducing by 1 per cent each year over a period of five years (ending with 15 per cent reservation for the storage year 2009/10), and would be able to reserve for its own use any incremental capacity it could achieve by investment. If we decided to recommend this remedy, we would not recommend a future review of capacity.

6.162. Centrica recognized that this would clearly define Rough's maximum capacity and establish the amount reserved for Centrica, and that it was designed to strengthen Centrica's incentives to invest at Rough. Centrica noted that, to replace the SBU capacity lost to it by the reducing reservation, it would have to invest to create additional injection, space and withdrawal in that time period. Centrica had identified projects which would allow it to create additional withdrawal and injection capacity but currently believed there were no economic projects that could reasonably be expected to create more space other than the production of more cushion gas from the reservoir, which would further erode Rough's physical withdrawal capacity.

6.163. To avoid creation of that negative incentive, Centrica proposed that it be allowed to reserve an amount of additional unbundled space that could be bundled together with newly-created injection and withdrawal capacity to form additional SBUs to replace those lost through its declining reservation. The amount of additional unbundled space available at Rough in any year ranged from 1,534 to 4,602 GWh (5 to 15 bcf), depending on customer withdrawal in the previous year. Centrica proposed, therefore, that CSL should make available a minimum of 1,534 GWh (5 bcf) every year. Centrica's reservation of this amount would start at zero in 2004/05, and increase by 307 GWh (1 bcf) each year for five years. (Centrica pointed out that 1 per cent of SBU capacity required 307 GWh (1 bcf) of space.) Whilst the amount of unbundled space available to the market would decline over this period, the amount of space (bundled with injection and withdrawal) that would come on to the market in the form of SBUs would increase by the same amount, so customers' net access to space would not decrease. Any additional space over and above the 1,534 GWh (5 bcf) would vary each year but would be verified by Centrica and made available to the market on an unbundled basis. Centrica also asked us to consider a reservation starting at 22 per cent and falling to 17 per cent over the same period on the basis of its historical use of Rough.

6.164. Centrica said that its comments on this remedy were based on there being no restrictions on it buying additional capacity in the secondary market and being able to sell the remaining capacity on both a fixed and indexed basis, through bilateral sales, auctions and other tenders and on a range of contract durations.

1(b) That Centrica would undertake to operate robust 'use-it-or-lose-it' provisions in relation to all Rough capacity.

6.165. Centrica said that it agreed in principle with the proposed undertaking, which was contained in the SSC and would therefore be covered by undertakings relating to the extension of the SSC. 'Use-it-or-lose-it' provisions would apply to Centrica's capacity in the same way as capacity held by other CSL customers.

1(c) That Centrica would undertake not to withhold flexibility from the market through its control of the output of the Morecambe and Sean fields and under its other depletion contracts with other UKCS producers—this may be achieved by a commitment to nominate maximum take from certain fields on particular days according to the demand or forward price in the market. The Commission would also like to examine the possibility of a commitment on Centrica's use of its own capacity on the Bacton interconnector.

6.166. Centrica believed that these proposed remedies had not been justified given that its share of flexibility had been overstated by Ofgem; that its current rights represented a declining share of flexibility; and that it had neither the ability nor incentive to increase the summer/winter differential.

6.167. If Centrica failed to use its contracted sources of flexibility when they would ordinarily be used, it would then have to forgo the use of those cheaper sources of flexibility and instead have to buy more expensive market gas. The Lexecon paper on incentives (see Appendix 5.5) demonstrated that under realistic assumptions this made no sense as a strategy (with benefits from the strategy being outweighed by these costs) and, for that reason, it was Centrica's view that remedies relating to Morecambe and Sean were unnecessary, as Centrica would not in any case have an incentive to forgo use of these sources post-merger. It had offered such remedies only to give reassurance to other parties; the undertakings it had proposed would increase the visibility of its relevant behaviour so that any residual doubt that it would try to withhold flexibility (and not be noticed) or use its sources of flexibility differently after the merger should be dispelled. Furthermore, a 20 per cent reservation of Rough capacity, being lower than Centrica's requirements, made it all the more unlikely that it would withhold any other sources of flexibility.

6.168. Whilst Centrica believed that these suggested remedies were not necessary, it also considered that, were they to be required in respect of Morecambe and Sean, they would not distort the market, since they would replicate the normal manner in which Centrica operated these contracts, and had done so before acquiring Rough. It was not true, as Ofgem had suggested, that they were 'artificial' and 'mechanistic triggers'. Centrica said that the sources would be used at lower levels. The undertakings would merely operate to the specified flow rate at or above the levels specified in the remedies.

6.169. Centrica said that if, despite the considerations outlined above, we required further assurance that it would not keep flexible gas off the market, it would be prepared to offer undertakings relating to Morecambe and Sean that differed slightly from those previously offered to the OFT.

6.170. Centrica would give a commitment to use North and South Morecambe fully (at the firm contractual maximum rate of delivery) when the demand for gas exceeded 75 per cent of peak day demand (as forecast by Transco) for the current gas year. This commitment would be subject to Morecambe's operational capabilities and the availability of access to the NTS at Barrow. It was not true, as Ofgem had suggested, that there was any lack of clarity as to the caveats that would be applied to this remedy.

6.171. The undertaking would prevent Morecambe gas from being withheld from the market at times when a reduction in its supply might be thought most likely to influence winter gas prices and hence the price of Rough storage capacity.

6.172. The demand threshold of 68 per cent of Transco's 1-in-20 system peak reflected the threshold at which Centrica would be utilizing all of its beach gas (excluding Sean) at maximum flow, including North and South Morecambe. Centrica had previously offered a similar remedy linked to a demand threshold of 75 per cent. Centrica had assumed that it could apply the 75 per cent threshold to the 1-in-20 peak day demand figure published by Transco, but it subsequently became aware that the Transco demand figure was calculated on a slightly different basis to the way it calculated its own 1-in-20 peak figure. The equivalent figure on the Transco basis was 68 per cent.

6.173. In Centrica's view, a price threshold (instead of a demand threshold) would not be appropriate as it would require regular review following any fundamental change in market prices. A fixed volume-based threshold would be a more sustainable measure over the period of the Morecambe undertakings. Should Transco change the methodology by which peak day demand was calculated, however, Centrica would request that the relevant volume thresholds for Morecambe (and Sean) be reviewed. Centrica commented that Morecambe's declining profile was broadly in line with the expected fall in Centrica's share of flexibility, so that the volume of gas guaranteed to be made available to the market would decline only at a similar rate to Centrica's share of currently contracted sources.

6.174. Centrica commented that the undertaking would be easy for third parties (for example, competitors) to monitor. The necessary information to demonstrate performance of the undertaking would be published on Centrica's web site.

6.175. Centrica said that Lexecon's work on incentives suggested that Sean was not relevant save to a strategy of manipulating prices at times of peak demand, although in that context the interconnector was a significant open source of flexibility, as were the Hornsea and LNG storage facilities.

6.176. Given the size of Sean, and other depletion contracts, relative to Morecambe, Centrica questioned whether a specific remedy was needed in relation to those. If we believed that one was, Centrica would be prepared to give an undertaking to nominate the Sean contract fully (at the firm contractual maximum rate of delivery) when forecast demand for gas was at 85 per cent of the 1-in- 20 peak day demand as forecast by Transco and the market price exceeded the Sean contract price.

6.177. To provide further assurance, Centrica offered an undertaking to nominate at 50 per cent of the firm contractual maximum rate of delivery under the Sean contract in respect of any gas day for which Transco's forecast of total system demand exceeded 77 per cent of the Transco forecast 1-in- 20 peak day demand for the gas year and where the market price of gas for that day exceeded the Sean contract price in force on those days.

6.178. The demand thresholds of 85 and 77 per cent of Transco's 1-in-20 system peak demand were chosen to reflect the thresholds at which the Sean field had historically been nominated by Centrica at the firm maximum contractual rate and at 50 per cent of the maximum contractual rate respectively, when account was taken of the Sean contract price and market prices.

6.179. Centrica said that the undertaking would ensure that the operation of Sean would not be altered in a way that might keep this flexible gas off the market when it would normally be used, in what might be feared to be an attempt to influence the price of storage at Rough. To go further and require Centrica to use Sean gas at a time when the market price was below the Sean contract price would be asking it to act in a suboptimal way, which could distort the market.

6.180. Centrica added that the contractual maximum rate of delivery was determined annually under the Sean contract and was set by the sellers (BP, Shell and ExxonMobil). The contract provided that the rate should be the maximum that could be achieved by the field.

6.181. In relation to the monitoring of the Sean undertaking, Centrica said that any withholding of Sean would be visible to the relevant producers who would, given publication of the remedy and Sean pricing, expect and wish to sell the gas and would be likely to alert Ofgem to any behaviour of Centrica that was not in line with the undertakings. If necessary, the operation of the Sean remedy could be policed by providing Ofgem with a report showing;

- (a) the Sean firm maximum contractual rate;
- (b) the 77 per cent and 85 per cent demand threshold days;
- (c) Sean contract prices and market prices; and
- (d) Sean nominations and deliveries.

6.182. Centrica did not believe that any remedy was necessary in respect of other depletion contracts. It said that fields supplying gas pursuant to those contracts would incur a much greater cost, if Centrica were to forgo their use, than Morecambe and Sean. Gas not taken in the winter would instead have to be taken in the summer because of take-or-pay commitments on Centrica, and Lexecon's work had shown that Centrica had every incentive to run these fields fully during the winter, as the value loss entailed in switching production to the summer months was substantial.

6.183. Centrica said that the Bacton interconnector was a massive source of third-party flexibility now and into the future. Centrica's currently contracted share of interconnector capacity was small ([redacted] per cent of maximum import to maximum export capacity, declining to [redacted] per cent and then [redacted] per cent in future as expansion projects came on line and existing contracts expired). Effective 'use-it-or-lose-it' provisions applied to interconnector capacity. A maximum of 35 per cent of IUK's nominal import capacity could be released by IUK on an interruptible basis. If Centrica chose not to use its [redacted] per cent of IUK capacity then the 35 per cent limit would ensure that its unused capacity would be made available on an interruptible basis to other interconnector shippers.

2(a) That Centrica would undertake to sell capacity on non-discriminatory terms, perhaps by reference to the standard bundled units defined in paragraph 1(a)(i)

6.184. Centrica believed that no undertaking was necessary given customers' right under the SSC to transfer capacity between each other, which meant that any attempt by CSL to discriminate between customers could be arbitrated very easily in the secondary market. In any event, the sale of capacity on non-discriminatory terms was required by the EC Directive and further ensured by CSL's obligations under the SSC. Centrica would, however, be prepared to give such an undertaking. It noted Ofgem's proposal for the SBUs to be separated fully into their constituent components after the primary capacity sale and said that the SSC and STORIT already provided for that.

2(b) That Centrica would undertake to sell capacity in a particular manner. The method of sale would need to ensure that Centrica could not manipulate the prices for Rough. The Commission wishes to explore a variety of approaches, including combinations of:

- *annual or quarterly auctions;*
- *auctions of the whole or a percentage of capacity;*
- *different procedures for auctions; and*
- *freedom to sell bilaterally, backed by an auction (with no reserve price) of any remaining capacity 30 days before the start of the storage year.*

2(c) As an alternative to (b), that Centrica would control the method of sale, but publish up-to-date prices on offer and the prices agreed for individual sales.

6.185. Centrica said that it had no objection in principle to CSL being required to sell by means of auctions, whether annual or more frequent, but it would prefer also to retain the flexibility to sell capacity through bilateral negotiations, which were popular with its customers. CSL would be prepared to auction, with no reserve price, any remaining capacity 30 days before the start of the storage year. The absence of a reserve price would act as a further incentive to ensure that all capacity was sold before the 30-day period, and would be in line with CSL's existing practice.

6.186. Centrica said that Ofgem had indicated that it would be prepared to consider CSL having control of the method of sale if there was an auction backstop. Centrica said that it would be happy with that position. It commented that Ofgem had not clarified its belief that this would be more difficult and costly to regulate than other sales processes/methods. Within the energy sector (and within wider competitive markets) non-discrimination provisions were common without appearing to require overt and costly regulation. What was proposed was no more than the preservation of existing sales processes as agreed by Ofgem with Dynegy.

6.187. It was not clear to Centrica why Ofgem believed that a requirement to sell capacity by auction obviated the need to decide whether or not indexed contracts would be appropriate. Centrica commented that it would be possible for customers to bid at auction for capacity on an indexed basis. Specifically, customers would be able to bid for indexed contracts, as they had done for storage year 2003/04, based on a multiplier to the summer/winter spread. Capacity was thus allocated to customers with the highest multipliers.

6.188. Centrica maintained that publication of prices was not necessary to ensure non-discrimination. The right to resell and the SSC ensured non-discrimination regardless of the method of sale. Centrica told us that in the sales process CSL regularly contacted all customers to update them on offer prices for Rough capacity. If required, it could post this information on STORIT too. Under the terms of the SSC, CSL was already required to post on STORIT the weighted average price of all capacity sold before the start of the storage year, but customers would be likely to oppose the publication of details of individual deals. If required, CSL would be prepared to publish on STORIT the weighted average price of all capacity sold on a monthly basis.

6.189. Centrica observed that real-time price transparency already existed in the secondary market. Bids and offers there represented prices at which parties were prepared to transact.

2(d) That CSL should retain the standard Storage Services Contract, and alter its terms only with the agreement of a majority of users.

2(e) As an alternative to (d), CSL would regularly review with all users the terms of services offered, with a view to agreeing amendments to the SSC; and/or developing a choice of contracts available to all; and/or formulating proposals relating to other aspects of these undertakings.

6.190. Centrica said it agreed that the SSC should not be open to unilateral amendment and, in principle, that amendments should be agreed with customers. It was, however, concerned about how such proposals might be implemented: for example, the definition of ‘user’ that would be applied: whether that would include all signatories to the SSC or just those with capacity bookings at that time. In particular it was concerned that, if current customers were effectively allowed to vote on proposed changes, the SSC could be exposed to block voting arrangements that would operate to the detriment of both CSL and minority/future customers.

6.191. Centrica suggested, as an alternative, the retention of existing arrangements as set out in the BG and Dynege undertakings, whereby amendment of the SSC required appropriate regulatory consent, but with provision made for customer consultation. The requirement for regulatory consent should remove Ofgem’s fears that the SSC could be changed in a way detrimental to end-users of gas.

6.192. Centrica commented that the existing terms of the SSC had not prevented CSL from selling innovative storage products (for example, bundled/unbundled capacity, different term lengths, different start dates, different price terms) nor should they be expected to in the future.

6.193. Centrica commented that as it was proposing to retain a standard contract, Ofgem’s concern that a number of different contracts would be more difficult to monitor, and make it more difficult to ensure non-discrimination, did not seem valid.

6.194. We put to Centrica a variation on *2(d)*, namely that Centrica might give an undertaking to ensure that CSL would retain the current standard SSC indefinitely and alter its terms only with the agreement of either a simple majority or a two-thirds majority of signatories or of capacity holders. For all the options, the endorsement of Ofgem and/or the OFT could also be required.

6.195. Centrica said that there were no prerequisites to signing the SSC, nor obligations that resulted from doing so. In Centrica’s view it would be inappropriate for changes to the SSC to be subject to a majority of signatories since, first, being a signatory said nothing about a company’s bona fide position as an active or potential customer and, second, companies could load the vote by having multiple subsidiaries or other legal entities sign the SSC. It would also be inappropriate for changes to be subject to a majority of capacity holders. The large number of small-capacity owners would have a disproportionate share of power relative to the small number of large-capacity holders. Votes could be weighted according to customers’ percentage bookings, but this still would not give a voice to new entrants, end-users or simply traditional customers who chose not to book capacity in the particular storage year when the vote was being held.

6.196. In Centrica’s view, it would be perverse to subject CSL, the service provider, to contractual obligations without its consent. The element of consent was lacking in our proposal. The advantage of the SSC was that it constituted a single set of terms and conditions, thus ensuring non-discrimination between customers. The alternatives in our proposal went further than was necessary to ensure continued non-discrimination (which in any event was required by the EC regime). Centrica said that it would be disproportionate to subject all changes to the SSC to such a rule, and would go further than the governance of change in Transco’s Network Code.

6.197. Given the difficulties with our proposal, Centrica believed that the most appropriate way forward would be to maintain the status quo whereby any changes to the SSC must be approved by the OFT, which in turn could decide to consult relevant parties. There seemed to Centrica no good reason to depart from the approach applied to Dynege.

3(a) *A strict legal, financial and physical separation between Centrica's storage operations and all other parts of its business, perhaps up to main Board level.*

3(b) *An undertaking from Centrica to ensure that no privileged information was passed from the storage operation to other parts of the group, including a code of conduct for staff that highlighted that breach of the code was a disciplinary matter that could affect employment.*

6.198. Centrica confirmed that CSL was already separated legally, financially and physically from the rest of the Centrica group (see paragraphs 6.102 to 6.107). It told us that CSL and CEMG both reported to the Managing Director of CEMG (Jake Ulrich), who—although not a member of Centrica's main board—in turn reported to Centrica's Chief Executive. There was therefore no real difference in the level of separation between CSL reporting to Mr Ulrich or to an executive member of the board. Centrica said that from a practical viewpoint it was valuable that the CSL and CEMG businesses reported to an individual with appropriate technical expertise. Jake Ulrich (a licensed engineer) was Centrica's only senior level executive with the requisite expertise.

6.199. Centrica pointed out that the SSC already contained confidentiality provisions that prevented CSL from disclosing protected information. Separation and protection of information was present in many other parts of the gas and electricity industries, both upstream and downstream.

6.200. As regards the protection of commercially sensitive information relating to Rough, Centrica said that any trading actions resulting from a breach of the code of conduct that it had put in place would be readily transparent to the market. Such actions would also risk CSL losing credibility with its customers and experiencing problems selling storage capacity in the following year. A breach would constitute a disciplinary offence that could affect employment.

6.201. In response to an invitation from us to put forward creative proposals for remedies, Centrica raised the possibility of a blind trust arrangement, which would potentially have the following advantages:

- improving perceptions of neutral, non-discriminatory management and operation;
- providing a mechanism for reporting to the OFT/Ofgem on the operation of CSL;
- providing an independent forum for review of investment decisions; and
- clear separation between CSL and other parts of Centrica.

6.202. After further consideration, it sent us a more detailed proposal. In brief, Centrica would retain the beneficial ownership of CSL but legal title and shareholder control would move to a trustee who in turn would be responsible for ensuring supervision of the CSL board in line with an agreed trust deed and business or operating plan. Centrica said that, as a matter of practicality, the trust would have to be over the shares in CSL rather than its assets. That was because a corporate trustee would not, in Centrica's view, be willing to run the entire business or be responsible for oversight of the management of an outsourced business as complex and risky as Rough. A trustee would not have the skills or resources, or appetite for risk, to take on that role. Trustees would be able to appoint and remove the board, which would give them a supervisory role but no involvement in day-to-day management issues.

6.203. Centrica said that its detailed consideration of the blind trust option had, however, revealed significant disadvantages. First, as the beneficial owner, bearing the reputational and economic risk of their loss of effective control, the board of Centrica would undoubtedly have serious concerns arising from their fiduciary duties to Centrica and their duties as directors of a public listed company, were they to agree to place Rough in a trust on that basis. Second, the additional cost of the blind trust would be substantial, and could exceed £15 million a year. Centrica told us that it did not wish to pursue the proposal. It believed that other measures could deliver equivalent protections without the disadvantages it had identified.

6.204. One series of measures would serve to extend the ring-fencing of CSL's activities, as follows:

- extending the arrangements for protection of information to main board level, with CSL reporting to a full-time executive board director separate from CEMG, or to Centrica's General Counsel

(with appropriate steps to ensure that the necessary technical expertise, absent Mr Ulrich, was available at board level);

- extending the arrangements for protection of information and the code of conduct to all CEMG asset operations;
- independent review of compliance with all undertakings required under the FTA by Centrica's Audit Committee (comprising non-executive board directors only) on a quarterly basis, with annual reporting to the OFT/Ofgem—this would have advantages particularly in terms of limiting the burden of monitoring compliance; and
- CSL having its own shipper licence in order to avoid using Centrica's supply business to ship and buy/sell gas on its behalf.

6.205. As a further strengthening of the independence of CSL, Centrica suggested that it could be required to ensure that the composition of the board of CSL was such that it would be able to act independently. This would provide an additional assurance that the CSL business was being run neutrally and with the sole interests of the Rough asset in mind. This would not preclude there being Centrica nominated directors on the CSL board, nor would it require a majority of independent non-executive directors. Centrica stated that the majority of the directors should be appointed for their relevant expertise and knowledge. It suggested that it could be obliged to appoint two or three non-executive directors. Such a structure, in Centrica's view, would be entirely consistent with directors' fiduciary duties and the preservation of independence in the context of a parent and subsidiary company relationship. Centrica commented that this approach would be consistent with that required for regulated water and sewerage businesses that were subsidiaries of diversified parent companies, and also with Centrica's financial services business, Goldfish.

6.206. Under this arrangement, the non-executive directors could be given explicit responsibilities to ensure that:

- CSL was incentivized to maximize economic value over a rolling five-year period, subject to Centrica's policies and compliance with agreed undertakings designed to secure neutral operation; and
- all core Rough commercial and asset operations staff were based within CSL on Centrica contracts but with CSL-focused key performance indicators, and with any dealings with other parts of Centrica being at arm's length.

In addition:

- the compliance regime would still be required to provide basic reassurance to the market regarding privileged and operational information but with the further assurance of independent directors in a supervisory governance role; and
- there would be further independent review by Centrica's Audit Committee (or the CSL independent directors) and reporting to the OFT/Ofgem.

6.207. Commenting on the relative merits of the blind trust and the alternative option, Centrica said that the trust would provide transparency to address the perception issue but this benefit would be offset by loss of expertise and operational synergies, which would lead to increased costs and could possibly raise concerns about credit standing. Furthermore, the complexity of setting up the trust arrangements would fail the test of regulatory simplicity, behavioural undertakings would still be required and the costs would be substantial. The overriding concern for Centrica, however, would be the governance issues arising from loss of control of Rough to the blind trust. Given the safety and reputational issues arising from ownership of Rough, it was natural that the owner should have the ability to intervene, proactively if necessary, in management to ensure safe and reliable operation.

6.208. Centrica concluded from its assessment of the alternative option outlined in paragraphs 6.205 to 6.207 that it could replicate the advantages offered by the blind trust whilst not materially increasing either costs or the regulatory burden. The governance issues raised by the blind trust could be avoided as the board of Centrica would retain ultimate control of CSL. Further ring-fencing would have a cost but

might be seen by the market as providing somewhat greater independence and more closely reflecting the intentions of the blind trust.

3(c) In addition to 3(a) and 3(b), that there should be reports to Centrica's Audit Committee, which in turn would submit a regular report to OFT and Ofgem on:

- *the arrangements for ensuring separation and protection of privileged information;*
- *the operating plan for CSL; and*
- *compliance with the full set of remedies.*

6.209. Centrica told us that CSL had appointed a compliance manager to oversee the arrangements for ensuring separation and protection of privileged information and the code of conduct. Centrica proposed that a report on these matters would be submitted to the Audit Committee on a quarterly basis and the Audit Committee would then prepare an annual confidential report to Ofgem and the OFT. Centrica said that it would also be willing to provide Ofgem with details of ongoing maintenance and capital investment in Rough.

3(d) Publication of the annual audited financial results of CSL, with disclosure of how Centrica paid for its own capacity use at Rough.

6.210. Centrica said that no specific remedy was needed since annual audited financial results for CSL would be prepared in accordance with the Companies Act. In respect of the 20 per cent of Rough capacity to be reserved by Centrica, the price paid would be the weighted average annual price which would continue to be published on STORIT.

6.211. Centrica did not believe it should be required to publish the price it paid for Rough storage purchased on the secondary market. The information was not relevant to any concern we might have about access to CSL-related information and it was unclear what detriment such a remedy would be seeking to address.

3(e) An undertaking from Centrica that CSL would obtain its own shipper's licence (or that CSL would use a shipper independent of Centrica) to conduct trades necessary for operational purposes associated with the management of the storage facility— but would be prohibited from engaging in any other trades; this would replace the present situation under which CSL engages the trading arms of the Centrica group to conduct trades on its behalf.

6.212. Centrica told us that CSL currently had a shipper services agreement with BGT, which allowed it to place buy and sell orders with BGT. CSL was, however, intending to apply for its own shipper licence. CSL would agree to limit trades to those for operational purposes only, which was what it was currently doing. Under existing arrangements, where CSL needed to place an order involving a significant volume of gas and it believed that the information could be commercially advantageous, it would first inform the market that it was experiencing an operational constraint at Rough. Once CSL had its own licence, Centrica's supply business would no longer make trades on behalf of CSL. Centrica noted that Ofgem's suggestion of a separate shipper identity (ATLink id) would not achieve the objective of avoiding the need for Centrica's supply business to make trades on behalf of CSL. In any event, CSL already had its own ATLink id.

3(f) An undertaking from Centrica to make any disclosure relating to the operation of Rough to all market players simultaneously.

6.213. Centrica said that such disclosure to all customers occurred in the normal course of business. It did not believe that a separate undertaking was necessary, but would be prepared to give it as part of CSL's obligation to allow non-discriminatory access to Rough.

3(g) An undertaking that Centrica would disclose more information on the operation of Rough, such as:

- *daily level of gas in store;*
- *within-day, perhaps hourly, injection/withdrawal quantities; and*

- *operational limitations.*

6.214. Centrica said that all customers, including CEMG, had access to the same amount of information on operations at Rough. There was no reason, as a result of the merger, why additional information should be made available, especially if CSL obtained its own shipper licence, as was the intention.

6.215. Centrica said that other gas fields or storage facilities were not required to publish this information. [

Details omitted. See note on page iv.

However, since many players had some knowledge of Rough's gas-in-store level because they had been able to track the position after Dynegy had published some information on one day in 2002, CSL would be willing to publish gas-in-store levels on a weekly basis if required. It was not clear to Centrica, however, what public interest detriment this undertaking was intended to address.

6.216. Regarding customer nominations, Centrica said that the SSC already required CSL to publish information on gross nominations at Rough four times a day. CSL believed that providing this information on a more frequent basis (for example, hourly) would reduce its flexibility to manage operational constraints experienced within day. This was of particular concern given CSL's obligation to hold customer nominations whole despite any operational constraints. It did not believe that the publication of hourly nomination data was necessary, given that Ofgem was no longer proposing within-day balancing of the gas network.

6.217. Centrica had considerable concerns about the publication of real time information on gas flows at Rough as this would potentially expose CSL to strategic manipulation of the market by other players. Specifically, it would be immediately visible to customers when Rough was not physically flowing to customer nominations, and thus would be in the market buying or selling gas to meet its obligations. Centrica said that no other market player was required to alert the market when it was forced to buy or sell gas and a requirement on CSL to do would put it at a commercial disadvantage.

6.218. Centrica said that a suggestion by Ofgem that effective separation might require more information to be made available to the market was logically inconsistent. Effective separation would protect commercially sensitive information about Rough from disclosure and hence no such information would be available for use elsewhere in Centrica.

6.219. More generally, Centrica believed that transparency of information should be the subject of a wider-ranging industry consultation (for example, with the operators of other storage facilities, IUK, and producers of beach flexibility). Centrica would be willing to cooperate in consultations.

3(h) An undertaking that Centrica would disclose the level of capacity at Rough held by it for each storage year.

6.220. Centrica said it assumed that we were referring to the combined total of (a) 20 per cent of Rough reserved to Centrica; and (b) Rough capacity purchased on the secondary market. It could not see what detriment such an undertaking would serve to remedy, nor what benefit it would provide.

4(a) An undertaking from Centrica that a specified minimum proportion of capacity should be offered on staggered long-term contracts and a specified minimum to be offered on annual contracts. For example, Centrica would offer at least 50 per cent of capacity for terms of between 3 and 7 years, and reserve at least 20 per cent for annual contracts. The purpose of such an undertaking would be to offer customer choice, ensure that new entrants were not excluded and facilitate traders' involvement in the market, and to ensure that control of a significant proportion of long-term Rough flexibility was controlled by parties other than Centrica. The Commission has provisionally decided that prohibiting indexed contracts would not be appropriate as this would reduce customer choice, but it would like to explore the possibility of an undertaking from Centrica to offer both fixed and indexed long-term contracts.

6.221. Centrica said that CSL wanted to be able to provide customer choice and respond to customer requests with regard to the duration of contracts and the way they were priced. It would be prepared to offer 50 per cent of capacity for sale on long-term contracts provided that it could do so on a range of

terms with the option to price the contracts either on a fixed basis or indexed to future summer/winter differentials.

6.222. Centrica was concerned to ensure that any undertaking required of it was to offer capacity for sale on a long-term basis, not actually to sell it. Compelling the long-term sale of capacity, potentially in quantities that exceeded the level of demand, would risk undermining prices and therefore investment in further expansion of new facilities elsewhere. If there was insufficient interest in long-term contracts, capacity could instead be made available on shorter terms (for example, annual contracts).

6.223. Centrica welcomed our provisional decision that it would not be appropriate to prohibit indexed contracts. It reiterated its belief that the price of gas supply flexibility was determined by the summer/winter differential, which it had no incentive to manipulate. There should, therefore, be no concern about CSL entering into indexed contracts.

6.224. Centrica noted Ofgem's stated desire to test the market for indexed contracts. In fact, CSL had already done so by offering all unsold capacity for 2003/04 on both a fixed and an indexed basis. Customers had elected to buy [X] per cent of the capacity at Rough ([X] per cent of the capacity on offer) on an indexed basis for that year.

6.225. Centrica said that it was willing to make at least 20 per cent capacity available on a one-year term, and more than 20 per cent could be made available if that was what customers wanted.

4(b) An undertaking from Centrica to facilitate the efficient operation and development of a secondary market in Rough capacity, perhaps by:

- i. ensuring injectability, space and deliverability rights are defined in ways to allow them to be traded separately;*
- ii. maintaining arrangements that allow for the transfer (not unreasonably restricted) of all or part of the rights purchased in the primary market; and*
- iii. publishing regularly updated information on prices offered and attained in the primary market.*

6.226. Centrica said that the current SSC, which it had indicated it was willing to keep in place, already required the Rough storage operator to facilitate a secondary market by providing a facility (STORIT) for customers to communicate their interest to trade capacity and transfer it between accounts with no need for the storage operator to be involved. The SSC defined deliverability, space and injectability separately. Customers could therefore already sell the constituent parts of the SBU on the secondary market.

6.227. Centrica said that it was prepared to publish prices offered for Rough storage in the primary market. However, it was concerned about the proposed publication of prices agreed with customers (see paragraph 6.188).

6.228. Centrica said that CSL would facilitate the operation of the secondary market by continuing to broker secondary capacity trades in response to customer requests. Centrica thought our suggestion in paragraph 5 of the remedies statement, that some measure to provide reassurance for competitors might be appropriate, was unnecessary. It did not see that there could be any concerns over Centrica buying capacity on the secondary market as it would be purely a buyer, not an owner, of the capacity sold in that market.

Duration of undertakings

6.229. Centrica said that it would be prepared to accept undertakings of unlimited duration on the understanding that it would request that they be reviewed if there were a material change in circumstances. It also said that it was prepared to agree in principle to a review of Rough capacity after five years, although it noted that the remedy we had proposed in relation to setting the nominal capacity and reservation of capacity (see paragraph 6.161) would remove the need for such a review.

Divestment

6.230. Centrica said that in its view complete divestment of Rough was unnecessary and would be a disproportionate remedy because an appropriate alternative set of remedies had been identified, could be implemented and were capable of regulatory oversight. Divestment would cause the public interest benefits of Centrica's ownership of Rough, outlined in paragraph 6.15, to be lost. Centrica commented that competitors and users of storage appeared to believe that any concerns arising from the merger could be addressed by behavioural undertakings.

6.231. Centrica noted that Ofgem's position had changed since the merger had been considered by the OFT. In its response to the remedies statement, Ofgem had suggested that the behavioural undertakings we were considering would be ineffective in addressing the detriments that it argued might arise from the merger, could potentially distort the market and would be difficult to supervise. Ofgem had concluded, therefore, that complete divestment would be more appropriate.

6.232. Centrica did not accept Ofgem's analysis. It said that we should not conclude that a structural solution was to be preferred in this case given that access to Rough had long been the subject of essentially behavioural undertakings. It believed that the degree of incremental regulation now being proposed would be proportionate and effective without being excessive, distortive or unduly burdensome to regulate. It amounted to:

- the obligation to offer to sell a specified level of Rough capacity to third parties; and
- any obligation to sell specific proportions of capacity on annual/longer terms.

Centrica noted that these two obligations had been endorsed by Ofgem in 1999 and again in its proposals in this case prior to reference to the CC, and could not, therefore, be regarded by Ofgem as involving an excessive regulatory burden. Furthermore, the second proposed obligation, plus any obligations in relation to output from Morecambe and Sean, would be consistent with how Centrica would expect to operate in any event. This additional regulation would not distort the market and the proposed remedies would go beyond the undertakings agreed by Dynegy in only limited and proportionate respects.

6.233. Centrica had noted our provisional conclusion that partial divestment would not be a suitable remedy, but asked us not to preclude it in conjunction with other remedies.