COMPETITION COMMISSION

REVIEW OF UNDERTAKINGS GIVEN BY CENTRICA FOLLOWING ITS ACQUISITION OF THE ROUGH GAS STORAGE FACILITY

Final report

Published: 20 April 2011

The Competition Commission has excluded from this published version of the report information which the inquiry group considers should be excluded having regard to the three considerations set out in section 244 of the Enterprise Act 2002 (specified information: considerations relevant to disclosure). The omissions are indicated by [✂]. Non-sensitive alternative wording is also indicated in square brackets.

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1. Summary

1.1 This is the Competition Commission's (CC's) final report following its review of the Undertakings given in December 2003 by Centrica plc (Centrica[1]) and Centrica Storage Ltd (CSL[2]) for the purpose of remedying or preventing the adverse effects on the public interest specified in the CC's 2003 report on the completed acquisition by Centrica of Dynegy Storage Ltd and Dynegy Onshore Processing UK Ltd.[3]

1.2 On 28 April 2010, Centrica submitted a request to the Office of Fair Trading (OFT) for a review of the Undertakings as it believed they were no longer required. In Centrica's view, changes in market conditions, in particular the availability of major new sources of flexible gas supply[4] and Centrica's own lower share in the supply of flexible gas, had significantly altered Centrica's market position. Centrica said that in addition the introduction of the European Union Third Internal Energy Market Package of legislation on the operation of the internal gas market (the TIEP) would introduce elements that were incompatible with the operation of, and introduce new safeguards that removed the need for, the Undertakings. The OFT reviewed this request and, on 8 September 2010, advised the CC to review the Undertakings.

1.3 We have used evidence presented in the OFT's report. We have also assessed information received from Centrica, the Office of Gas and Electricity Markets (Ofgem) and other parties during our review.

1.4 Our task was not to re-examine the conclusions reached in 2003 in relation to evidence then available. We have taken these conclusions as our starting point. The scope of our review has been to examine whether there has been a change in circumstances which has been sufficient to cause us to determine that the Undertakings (or any aspects of the Undertakings) are no longer appropriate and should be released, varied or superseded.

Market assessment

1.5 We assessed the effect of wholesale market changes on the Rough gas storage facility's (Rough's) ability to influence the price it commands. In particular, we looked for evidence that the wholesale supply of gas to Great Britain[5] in winter was now more price responsive than in 2003.

1.6 Centrica argued that investment in import capacity since 2003 had connected Great Britain to new competing sources of flexibility, particularly Norway, the Continent and liquefied natural gas (LNG). We looked at the physical and economic characteristics of different gas sources to determine the extent to which sources of imported gas can supply flexibly.

1.7 We found that, compared with 2003, there had been a significant increase in the available capacity for delivering gas to Great Britain. This has more than offset the considerable and continuing decline in UK Continental Shelf (UKCS) production over the same period. However, in addition to the physical capacity of a source of gas, we need to take into account the economic, legal and operational considerations which

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[1]Centrica means Centrica plc or the wider Centrica group of companies, according to context.
[2]Where arguments have specifically been made or information provided by CSL or Centrica Energy, we have generally attributed to the specific company (this is particularly the case in the discussions on remedy variations).
[3]*Centrica plc and Dynegy Storage Ltd and Dynegy Onshore Processing UK Ltd: a report on the merger situation*, August 2003.
[4]Flexible gas is gas where the amount supplied is able to vary in response to changes in gas demand.
[5]In the 2003 report we defined the geographic market as Great Britain and we use the same market definition again. In this review, we have received comments and analysed material with reference to both the UK and Great Britain; for the purposes of this review we have taken these to be essentially equivalent.

determine the price needed to secure additional supplies from each source. We found that, in general, downstream suppliers of gas were confident that the Great Britain gas system would generate appropriate price signals to ensure that it secured physical supplies of gas to meet demand from the various sources. However, the major issue was the price needed to secure additional supplies given the physical, market and operational constraints on the various sources in competition with Rough. We found that other factors such as contractual pre-emption of supplies and demand conditions in other markets were significant factors in determining the price necessary to attract gas to Great Britain.

1.8 Our analysis of the relationship between flows and prices suggested that flows from the Continent would be determined by wider European market conditions. We found that contractual arrangements on the Continent were acting as a constraint on the availability of winter gas for export to Great Britain.

1.9 We did not consider that Rough's position had changed sufficiently since 2003 to conclude that the adverse findings made by the CC in 2003 no longer applied. Market conditions had changed but Rough still had significant market power and Centrica continued to have a strong position in the relevant retail markets. Therefore, the rationale for the Undertakings remained valid.

1.10 We assessed how market shares for domestic retail supply of gas and electricity have changed since 2003. Centrica's share of domestic gas supply has fallen since 2003 but remains high and Centrica continues to be by far the largest gas supplier. It is also the largest supplier of electricity to domestic customers. On this basis, we concluded that Centrica continued to have a strong position in the relevant retail markets.

Whether specific aspects of the harm identified in the 2003 report still apply

1.11 We considered whether it was likely that the aspects of harm that the CC identified in 2003 may still be expected to occur in the light of any change of circumstances. We examined each of the aspects of the harm identified in the 2003 report. We decided that we will no longer include a remedy in the Undertakings to address the concern identified in 2003 in relation to Centrica's incentives to invest in Rough. In relation to each of the other harms, we found that in some cases there had been no real change in circumstances and that in others there had been insufficient change to remove the potential for abuse identified in the 2003 report.

Assessment of the European Union Third Internal Energy Market Package

1.12 We considered the implications of the TIEP for the Undertakings and whether its introduction represented a change of circumstances that justified variation or release of the Undertakings, or aspects of them. We would need to release or amend the specific provisions to avoid incompatibility with the TIEP, the provisions of which are binding on the UK in accordance with the principles of EU law.

1.13 We concluded that the more flexible and as yet untested approach in the TIEP did not provide adequate safeguards at this stage against our concerns relating to Centrica's ownership of Rough to justify releasing the Undertakings. We considered the implications of Centrica being subject to both the TIEP and the more detailed provisions in the Undertakings. We decided that the need to maintain the detailed and tailored provisions in the Undertakings outweighed any disadvantage to Centrica arising from any possible double jeopardy and, provided we addressed any conflicts or genuine problems in interaction, we did not consider that the result would cause undue difficulty for Centrica.

1.14 We could see that there was some force in the argument that the mechanism in Undertakings 3.1 to 3.3 and Undertaking 15 capping Centrica's right to obtain Rough capacity from CSL by prohibiting Centrica from taking part in the Primary Sales Process,[6] but allowing it to reserve a specified amount of Rough capacity, conflicted with Article 17 of the Gas Regulation (and possibly Article 15 of the Gas Regulation and Article 13 of the Gas Directive). However, we considered that the existing system of limited rights of reservation together with exclusion from the Primary Sales Process may be consistent with the TIEP once the significance of Centrica's ownership of Rough in the light of its downstream market position and the importance of ensuring third party access to Rough were properly taken into account.

1.15 We decided to change the mechanism limiting Centrica's right to purchase Rough capacity to align it more closely with the scheme of the TIEP. The new mechanism will cap the amount of Rough capacity that Centrica can obtain from CSL by allowing Centrica to participate in a transparent and non-discriminatory primary allocation process subject to an upper limit on the amount of Rough capacity that it can acquire from CSL. This will protect customers from discrimination and ensure third party access. It will promote and not conflict with the objectives of the TIEP.

Remedies variations

1.16 We decided to vary the Undertakings by introducing the mechanism described in paragraph 1.15. We also decided, after exercising our judgement on a number of competing factors, to raise the maximum amount of Minimum Rough Capacity[7] that Centrica would be able to purchase from CSL to up to 25 per cent, which is an increase from the reservation of 15 per cent it is presently entitled to. Centrica may also purchase up to 1,534 GWh of Additional Space from CSL. There will be no cap on Centrica's purchases of Incremental Capacity[8] or Further Additional Space. We introduced a mechanism for Ofgem to approve changes to the caps on the amount of Minimum Rough Capacity and Additional Space Centrica can purchase.

1.17 We decided to vary the Undertakings to allow Centrica to apply to Ofgem to sell some Minimum Rough Capacity in non-SBU form. Ofgem would ultimately determine whether it approved Centrica's request and determine an appropriate consultation process that allowed market participants to indicate whether they consider the new products to be sufficiently valuable and innovative to justify the change. We also decided to amend the Undertakings to allow Centrica to apply to Ofgem to introduce new contracts for non-SBU products. Ofgem would determine the appropriate

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[6]Primary Sales Process is the purchase of SBUs, Additional Space and Further Additional Space at Rough in the Primary Market. Primary Market is the market for the sale by CSL of SBUs, Additional Space and Further Additional Space at Rough. SBUs are standard bundled units of gas storage at Rough (each comprising 1 kWh/day deliverability, 66.593407 kWh of space and 0.351648 kWh/day injectability).
Additional Space is the space into which gas can be injected over and above the Minimum Rough Capacity, which has been created as the result of the operation of Rough by its previous owners and which can be quantified before the beginning of the Storage Year following observations on the pattern and extent of customer withdrawal nominations in the previous Storage Year, but which in any event will be no less than 1,534 GWh.
Further Additional Space is the space into which gas can be injected over and above the Minimum Rough Capacity and Additional Space, which can only be quantified and sold during the Storage Year. It does not include space created through Incremental Capacity.
Storage Year is the period from Gas Day 1 May in any year to (and including) Gas Day 30 April of the following year. The Gas Day commences at 6.00am on a given calendar day and ends at 6.00am on the following calendar day.
[7]Minimum Rough Capacity is 455 million SBUs.
[8]Incremental Capacity is capacity created at Rough achieved through investment in storage operations by CSL which is incremental to Minimum Rough Capacity, Additional Space and Further Additional Space.

consultation process for any proposed new contract and its approval of the final terms of any new contract would be required.

1.18 We decided to make a number of other variations to the Undertakings: to amend Annex 2 to provide that the auction of unsold capacity required by Undertaking 3.4 be subject to a marginal cost reference reserve price as opposed to a zero reserve price;[9] to amend Undertaking 5.3(e) to include an ability for Centrica to apply to Ofgem to approve new services to be included in 5.3(e), as services the Centrica Group can provide to CSL; and to include a proviso to allow CSL to seek Ofgem's consent to transfer, by way of exception, certain operational information relating to the Rough or Easington facilities, which is included in the definition of Commercially Sensitive Information in Undertaking 6, to other members of the Centrica Group which from time to time carry on gas supply, shipping, trading, storage procurement activities or asset operations.

1.19 We decided not to vary the Undertakings to require that an auction process be used for the sale of Minimum Rough Capacity (although Ofgem may decide to require an auction process for the sale of non-SBU products where it has approved the use of Minimum Rough Capacity for the relevant non-SBU product). We decided to continue to require CSL to publish Gross Nominations data four times a day.

Proportionality

1.20 In our proportionality assessment we assessed both direct and economic costs and weighed both against the benefits arising from the Undertakings. We concluded that the overall costs (direct and economic) of continuing the Undertakings were likely to be small in relation to the potential detriment that would be avoided. We considered that the Undertakings, even without the variations we decided to make, remain proportionate to the adverse effects that are likely to arise in the absence of the Undertakings. Nevertheless, we have assessed Centrica's submissions in relation to adverse effects or practical difficulties arising from the Undertakings and have considered the scope to reduce the economic and direct costs further. We decided to make a number of variations to the Undertakings which will also have the effect of reducing the burden on Centrica. We consider that the Undertakings, including the variations we decided to implement, are proportionate to the adverse effects that are likely to arise in the absence of the Undertakings. When drafting the final text of variations, we will have due regard to the need to ensure that there is as much clarity and coherence as possible between Centrica's obligations under the Undertakings and the obligations placed on Centrica by virtue of TIEP requirements in the equivalent area, to seek to reduce Centrica's compliance task.

Conclusion

1.21 We considered whether the changes of circumstance identified by the OFT had led to sufficient change in the competitive environment identified in the 2003 report or the operation and effect of the Undertakings that they should be released, varied or superseded. Taking into account all the evidence we have seen, we decided that we are not persuaded that the Undertakings should be varied or released because of changes in market conditions. With the exception of investment, we decided that the aspects of harm that the CC identified in 2003 may still be expected to occur. We

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[9]It is specified in Annex 2, paragraph 1.2, that the auction must be without a reserve price but that CSL need not accept negative bids. This is also referred to in this report as a 'zero reserve price'.

also concluded that the introduction of theTIEP did not remove the need for the Undertakings.

1.22 However, we decided to make a number of variations to the Undertakings. To align the Undertakings more closely with the scheme of the TIEP, we have changed the mechanism for effectively capping Centrica's purchases of Rough capacity from CSL. We also decided, taking into account relevant changes since 2003, to increase the limit on the amount of Minimum Rough Capacity Centrica is allowed to purchase from CSL to 25 per cent, but have incorporated a mechanism for this level to be adjusted up or down in future.

1.23 Other variations relate to product innovation. These introduce greater flexibility within the Undertakings but incorporate procedures that ensure that appropriate consultation takes place, with oversight of the process by Ofgem, so that the key protections in the Undertakings are not undermined. Centrica is able to apply to Ofgem for approval of the sale of some Minimum Rough Capacity in non-SBU form and new contract forms for non-SBU products where market demand exists. The remaining variations relate to aspects of the separation and information provisions. Ofgem is able to approve new services Centrica can provide to CSL and approve the transfer, by way of exception, of certain operational information, which is included in the definition of Commercially Sensitive Information in the Undertakings, from CSL to Centrica.

1.24 We consider that we are in a position to conclude on our assessment at this stage, recognizing that it may be appropriate to make certain adjustments when implementing the variations identified in this report to reflect the detail of the Department of Energy and Climate Change (DECC) implementation measures for the TIEP.

2. Introduction

2.1 In August 2003, the CC published its report on the completed acquisition by Centrica of Dynegy Storage Ltd and Dynegy Onshore Processing UK Ltd in November 2002. In the acquisition, Centrica acquired from Dynegy Inc (Dynegy) two companies which owned and operated the Rough gas storage facility and associated assets. The Rough facility, a partly depleted offshore gas field in the southern sector of the North Sea, was at the time of the inquiry, and still is, by far the largest gas storage facility in Great Britain. The CC found that competition in the markets for flexible gas and domestic gas supply would be weakened as a result of the merger, with the likely consequence that prices would be higher than in the absence of the merger. The CC also concluded that innovation and investment at Rough would be lower than under another owner. Although there was some benefit to the public interest from Centrica owning Rough (being a known quantity with regard to operational experience, reputation and financial strength), the CC did not consider that this outweighed the adverse effects and concluded that the merger may be expected to operate against the public interest.[10] The CC concluded that to remedy the adverse effects identified, Centrica should offer undertakings regarding its behaviour as owner of Rough.

2.2 Following the 2003 report, undertakings were given by Centrica and CSL and accepted by the Secretary of State for Trade and Industry (the Undertakings) for the

[10]The merger was referred to the CC under the merger provisions of the Fair Trading Act 1973 (FTA). The FTA was based on a public interest test. The CC now takes its decisions using a 'substantial lessening of competition' (SLC) test under the merger provisions of the Enterprise Act 2002 (the Act).

purpose of remedying or preventing the adverse effects on the public interest specified in the 2003 report.[11]

2.3 On 28 April 2010, Centrica submitted a request to the OFT for a review of the Undertakings as it believed they were no longer required as a result of two identified changes in circumstances. The first was that, in Centrica's view, changes in market conditions had significantly altered Centrica's market position in the supply of flexible gas. The second was that the introduction of the TIEP would introduce elements that were incompatible with the operation of the Undertakings and introduce new general safeguards that removed the need for specific undertakings in relation to Rough.

2.4 The OFT reviewed this request and, on 8 September 2010, in exercise of its powers under Schedule 24, paragraph 16, of the Act, it advised the CC to review the Undertakings.[12] Under the Act, power to supersede, vary or release undertakings given under section 88 of the FTA passed from the Secretary of State to the CC, subject to the designation of the relevant undertakings by an order made by the Secretary of State.[13]

2.5 In this report, we set out our final decision on whether to supersede, vary or release the Undertakings.

3. Background

The 2003 report

3.1 Centrica is an integrated energy company that operates predominately in the UK and North America. It was formed by the 1997 demerger of Centrica from British Gas plc. At the time of the demerger, Centrica was mainly involved in retail gas supply but also owned the Morecambe Bay gas fields. At the time of the 2003 report, Centrica had diversified, in particular by entering the UK retail electricity market and acquiring gas-fired power stations.

3.2 In November 2002, Centrica acquired a gas storage business, Rough, from Dynegy, a US energy company. Storage is used to help deal with fluctuations in gas supply and demand. Variations in demand are particularly pronounced in relation to domestic customers. There are seasonal variations in demand, which are a consequence of overall demand for gas in winter being higher than in summer. There are also shorter-term variations where demand in winter varies in response to shorter-term changes in temperature. In 2003, Rough accounted for 76 per cent of Great Britain gas storage. It was used primarily for seasonal storage since it could deliver a substantial amount of gas—equivalent to about 7.5 per cent of Great Britain peak demand—for 67 days in winter.

3.3 In its 2003 economic assessment, the CC considered the amount of wholesale gas that was able to vary to meet the higher demand for gas in winter (due to seasonal variations and daily variations within the season). It assessed the amount of flexible

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[11]The Undertakings were given by Centrica and CSL, the operator of Rough. Pursuant to a request by the Secretary of State, the OFT, in concert with Ofgem, consulted with Centrica and CSL with a view to obtaining from them Undertakings in accordance with section 88(1) of the FTA. The Secretary of State accepted the Undertakings in accordance with section 88(2) of the FTA on 18 December 2003. On 3 April 2006, paragraph 5.3(a) of the Undertakings was varied. The variation applied in respect of Centrica's wish, as part of an internal group restructuring, to establish a new intermediate holding company, Centrica Holdings Limited (CHL), within the Centrica Group.

[12]A redacted version of the OFT's Advice has now been published on the CC's website. See: www.competition-commission.org.uk/inquiries/ref2010/centrica_review/pdf/centrica_review_oft_advice_to_cc.pdf.

[13]The relevant provisions are found in paragraph 16 of Schedule 24 to the Act. The Undertakings were designated in The Enterprise Act 2002 (Enforcement Undertakings and Orders) Order 2004 (SI 2004/2181).

gas that Centrica controlled compared with other companies.[14,15] The CC examined Centrica's share of flexible gas in two ways: *(a)* across the winter period; and *(b)* Centrica's share of flexible gas on the peak demand day.

3.4 Besides Rough, in 2003 Centrica had other long-term interests in the wholesale supply of gas. This included contractual and equity interests in UKCS gas (including ownership of the flexible Morecambe North and South fields, bookings of interconnector capacity and interruptible retail contracts). The CC found that the acquisition of Rough significantly enhanced Centrica's share of flexible gas[16] since Rough increased Centrica's share in 2003 of winter flexible capacity from 34.2 to 46.3 per cent.[17]

3.5 The CC also examined Centrica's shares in the retail supply of gas. It found that Centrica's share of supply to domestic customers was around 63 per cent. Centrica's competitors in retail supply of gas to domestic customers were the five companies that sold electricity to domestic customers. While the five electricity companies now retailed gas, Centrica had in turn entered the domestic electricity supply market, and was the joint leading supplier with about 22 per cent of customer accounts.

3.6 The report said that in assessing the merger's effect, account was taken of the fact that some sources of flexible gas were much weaker substitutes for Rough than others and noted that, because of Rough's relative size and its unique characteristics, any owner of Rough would be likely to have a degree of market power even if it did not control other sources of flexibility.[18] The CC considered that an owner of Rough would be able to discriminate effectively, including by favouring its own trading and supply operations.[19] The CC also noted that Centrica's incentive to discriminate was greater than that of any other counterfactual owner because of its strong position in the domestic gas supply market.[20] The CC found, given the strong downstream position of Centrica combined with Rough's 'unique importance' as a source of flexibility,[21] Centrica's ownership of Rough would give it the ability and incentive to behave in ways that would disadvantage its downstream rivals.[22]

3.7 The CC concluded that Centrica had the ability to withhold sources of flexible gas in order to force up wholesale gas prices and that such a strategy could be profitable. However, the CC noted that there were significant reputational risks if Centrica pursued this strategy. These risks could damage the British Gas brand and lead to a significant loss of domestic customers, as well as adverse regulatory consequences. The CC therefore considered that there was not a sufficient basis for concluding that Centrica may be expected to withhold capacity, as a result of the merger, in order to

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[14]To aid its analysis, the CC defined flexibility as the difference between maximum available supply over a given period and average supply over the year. So daily flexibility was defined as the difference between the maximum daily capacity and the daily average of net supplies over a full year. Winter flexibility was defined as the difference between the maximum capacity available over the winter period (average per day) and the daily average of net supplies over a full year (but the daily average included the maximum flows assumed to flow in the winter months).

[15]In addition to Rough, Centrica had other sources of flexibility available to it through ownership of equity in producing gas assets or through long-term contracts.

[16]Looking at shares of the maximum flexibility that can be made available over the winter period, Centrica had 34 per cent of the total and the merger—attributing the whole of Rough's capacity to Centrica—increased this to 46 per cent. Centrica's share of flexibility actually used in the previous three winters ranged from 40 to 51 per cent, which Rough's usage would have increased to 59 to 70 per cent. Looking at shares of the peak demand day flexibility, Centrica had 24 per cent of the total and the merger—attributing the whole of Rough's capacity to Centrica—increased this to 34 per cent. The share of flexibility represented by Centrica's existing sources was thought likely to decline over the following few years but was still thought to be substantial.

[17]2003 report, Table 5.9.

[18]Paragraph 2.51.

[19]2003 report, paragraph 2.132.

[20]2003 report, paragraph 2.134.

[21]For example, see 2003 report, paragraph 2.170.

[22]2003 report, paragraphs 2.171 & 2.172.

increase wholesale prices.[23] However, the CC concluded that an owner of Rough would be able to discriminate effectively, including by favouring its own trading and supply operations. The CC noted that Centrica would, by virtue of its large downstream interests, have the incentive to use Rough to discriminate so as to harm its downstream competitors.[24] The CC concluded that, in the absence of further constraints, Centrica may be expected to:

(a) discriminate between customers in giving access to capacity at Rough;[25]

(b) use to its advantage sensitive information gained from the operation of Rough;

(c) withhold information about the operation of Rough;

(d) be less innovative in marketing Rough products than another owner; and

(e) invest less in expanding Rough's capacity than another owner.

3.8 In the case of investment, the CC said that the impact of Centrica failing to invest to expand Rough's capacity would be similar to the effect of its withholding gas.[26] The CC said that Centrica would be more likely to do this than another owner of Rough because of its control of other sources of flexibility and because a reduction in withdrawal rights could create difficulties for its downstream competitors.[27]

3.9 The report also said that the CC was satisfied that, in the absence of undertakings restricting Centrica's conduct as operator of Rough, other industry participants (particularly downstream competitors of Centrica) and potential entrants would experience a significant increase in uncertainty, both as to their future access to Rough and as to the effect which the merger might have on Centrica's conduct in the wholesale market. The CC said that, given Centrica's very powerful position in domestic gas supply, and Rough's unique importance as a source of flexibility, this uncertainty went beyond what those parties could expect to have to cope with in the normal course of business.[28] Likely effects flowing from this uncertainty were:

(a) a reduction in entry into the gas storage, trading and supply markets;

(b) a reduction in the willingness of other downstream operators to compete vigorously with Centrica; and

(c) a distortion in investment in storage: effects could include a reduction in investment caused by increased uncertainty over expected returns, and inefficient investment in other storage facilities motivated by uncertainty over future access to Rough.

3.10 The 2003 report concluded that, as a result of the adverse findings summarized in paragraphs 3.7 and 3.9, competition in the markets for flexible gas and domestic gas supply would be weakened and that it was likely the ultimate effect would be higher prices for end-users of gas than would otherwise apply.

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[23]Paragraph 2.125.
[24]2003 report, paragraph 2.134.
[25]The CC noted that the incentive for Centrica to discriminate would be to harm its downstream competitors so as to impair their ability to grow market share and hence their ability to constrain Centrica's prices. The CC also noted that Centrica's incentive to discriminate was greater than that of any other counterfactual owner.
[26]2003 report, paragraph 2.162.
[27]2003 report, paragraph 2.156.
[28]2003 report, paragraph 2.170.

The Undertakings

3.11 The CC said that the adverse effects it had identified could be remedied by Centrica giving statutory undertakings regarding its behaviour as owner of Rough. The Undertakings were given by Centrica and CSL and accepted by the Secretary of State for Trade and Industry pursuant to section 88(2) of the FTA for the purpose of remedying or preventing the adverse effects on the public interest specified in the CC's 2003 report into the acquisition by Centrica of Dynegy Storage Ltd and Dynegy Onshore Processing UK Ltd.[29] The Undertakings are set out in Appendix A.

3.12 Key aspects of these Undertakings were: ensuring non-discriminatory access to Rough for users by imposing various restrictions on the sale of Rough capacity; ensuring that Centrica could not use information to advantage the Centrica business over competitors or withhold information from the market by requiring legal, financial and physical separation of CSL from other parts of the Centrica group, placing restrictions on the flow of commercially sensitive information from CSL and imposing requirements to disclose certain information to the market; encouraging the development of an effective secondary market for trading Rough capacity; and encouraging further development of Rough capacity. The Undertakings also made provision in relation to monitoring compliance with the Undertakings.

3.13 The CC recommended that Centrica should offer the following Undertakings:

(a) offer for sale Rough's full capacity on non-discriminatory terms, retaining the existing Storage Services Contract (SSC);[30]

(b) auction all capacity remaining unsold no less than 30 days before the start of each storage year, with no reserve price;

(c) not participate in the primary sale process (ie no Group company should acquire Rough capacity in the primary sale process) but reserve no more than 20 per cent of Rough's existing nominal capacity for itself in the first year (2004/05) falling to 15 per cent over five years and remaining at that level thereafter;[31]

(d) maintain legal, financial and physical separation between its storage business and all other parts of the group; ensure that no commercially sensitive information arising from the operation of Rough is passed to other parts of Centrica; and make any disclosure of information relating to the storage operations to all market participants simultaneously;

(e) facilitate the efficient operation and development of the secondary market in Rough capacity;

(f) offer at least 20 per cent of Rough's capacity on annual contracts; capacity should also be offered on a range of other durations and with the possibility of fixed or indexed pricing; and

(g) arrange for an independent review of compliance with all undertakings by Centrica's Audit Committee, with annual reports to the OFT and Ofgem.

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[29]The Undertakings were given on 18 December 2003, and varied on 3 April 2006.
[30]The SSC governed the way that Rough storage was sold and the services that Centrica provided.
[31]To give Centrica an incentive to invest in expanding Rough's capacity, in that Centrica would be able to retain any incremental capacity for its own use.

Key aspects of gas supply and storage

3.14 The 2003 report described Great Britain's sources of gas, the Great Britain gas transmission and distribution system and Great Britain gas storage in some detail.[32] The key aspects of the transmission and distribution system and gas storage have not changed significantly since then. Changes to Great Britain's sources of gas are discussed in paragraphs 3.23 to 3.26 below.

3.15 In summary, gas is received into the UK National Transmission System (NTS) at various receiving terminals where the gas is processed for delivery into the NTS. The receiving terminals receive gas delivered from UK and Norwegian gas fields via pipelines, interconnectors linked to the gas transmission system at Zeebrugge[33] and (since the 2003 report) Balgzand and, more recently, from deliveries of LNG delivered by ship into LNG import terminals. The NTS is operated by National Grid Plc (NG)—formerly Transco at the time of the 2003 report. Gas is delivered direct from the NTS to some large customers (large industrial and power stations) and is also delivered to Local Distribution Zones (LDZs) which deliver gas to domestic, commercial and industrial customers, who are connected to the LDZ.

3.16 Domestic homes and businesses purchase gas from retail suppliers. These customers are able to draw down gas from the transmission system as and when they require it. To deliver gas to a customer, a supplier must first purchase the wholesale gas and then arrange for the gas to be transported through the NTS and the LDZ (which requires the payment of various entry, exit and transportation charges).

3.17 The suppliers contract with gas shippers to provide gas to Great Britain from a variety of sources, either UK-produced gas from the UKCS, imports via pipelines from Norwegian gas fields, imports via interconnectors (pipelines connecting the Great Britain and European gas transmission networks) or LNG imports.

3.18 Demand from domestic customers in particular is highly variable and very dependent on temperature. It is important for system security that the gas supply system remains in balance. NG has overall responsibility for balancing the system. Demand varies on a seasonal and daily basis and a supplier has to ensure that its gas supplies meet the demands of its customers on the day. If a supplier is out of balance it has to pay the cost of NG balancing the system by buying or selling gas.[34] At times of shortage or excess of gas the costs of doing this can be large. Suppliers make top-up purchases of (or sales of excess) gas during each day to ensure that they are 'balanced' by the end of the day.

3.19 Buying and selling of gas takes place at the National Balancing Point (NBP), which is anywhere within the NTS and provides a transfer point for gas traded. Gas prices are seasonal and volatile on a short-term basis, as shown in Figure 1.

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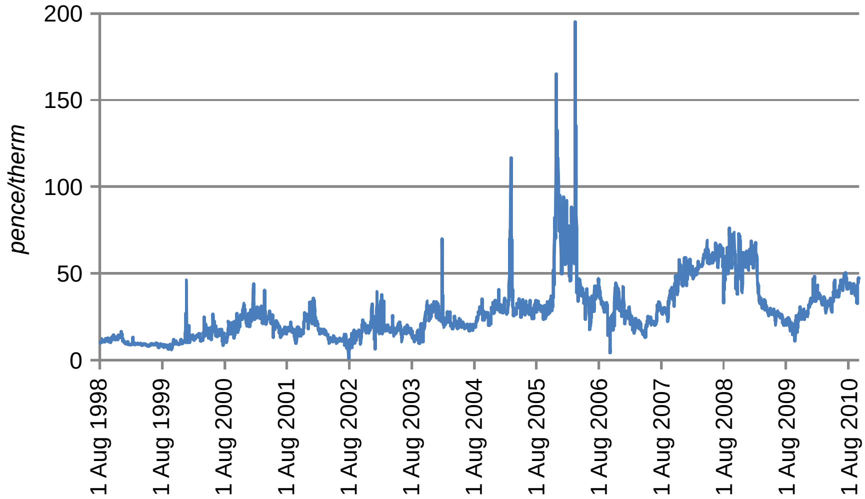
[32] 2003 report, Chapter 4.
[33] Northern Ireland and the Republic of Ireland are also both linked to Great Britain through interconnectors that presently supply the majority of the gas demand in those countries.
[34] These charges, designed to target the cost of energy balancing incurred by the system operator to the parties who created those costs (ie those parties who do not balance their inputs and outputs within the relevant balancing period), are known as 'cash-out' prices.

FIGURE 1

NBP prices, 1998 to 2010



Source: CC analysis of data provided by Centrica.

3.20 Gas purchases can be made either directly with a supplier on a contracted basis, or can be bought through traded markets. Traded markets for gas in Great Britain include the following:

(a) the on-the-day commodity market (OCM) through which traders, shippers and NG buy and sell gas for the current day and the day ahead;

(b) an over-the-counter (OTC) market for the day ahead, weekdays ahead, weekend ahead, current month, forward months and forward quarters and seasons, extending out about five years (although liquidity is lower further out). Price assessments are reported by Platts, Argus Media Limited and ICIS Heren[35] for all these periods;

(c) the International Petroleum Exchange (IPE) on which gas futures are traded. In addition, derivatives such as options and swaps are traded bilaterally; and

(d) a market for trading secondary storage capacity and gas in store at Rough facilitated by APX[36] Gas Storage in cooperation with CSL.

3.21 The significant seasonal and day-to-day variations in gas demand described in paragraph 3.18 mean that suppliers need access to gas supplies that can vary the amount of gas delivered on the day, to manage fluctuations in gas demand and the supplier's consequent exposure to volatile movements in gas prices. Some of the flexibility required is met by variations in the gas delivered from supply sources but a key source of flexibility is gas storage. Gas storage facilities tend to be filled when prices are low (typically in summer) and the gas stored is released when prices are higher (generally in winter). Storage facilities vary by size and deliverability (the rate at which gas can be transmitted); they are typically categorized as short-range

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[35]ICIS Heren was known as Heren Energy Ltd at the time of the 2003 report.
[36]See www.apxendex.com/index.php?id=180. APX-ENDEX is an energy exchange operating spot and futures markets for electricity and natural gas in the Netherlands, UK and Belgium.

storage (SRS),[37] medium-range storage (MRS)[38] and long-range storage (LRS).[39] Rough is currently Great Britain's only LRS facility. It is operated by CSL and continues to be a large proportion of the total gas storage in Great Britain. Table 1 is taken from the 2003 report. At the time, Rough formed 76 per cent of total gas storage. Since then, the position has not changed significantly—see Appendix B. Two small storage facilities have been built;[40] one LNG storage facility has been closed,[41] another Isle of Grain (Grain) has been converted into an LNG import facility. Of the remaining LNG storage facilities, two more[42] are due to close in 2011, with the remaining facility under review.[43] Rough has been expanded (in particular, in relation to space, which Centrica told us was now around 36,000 GWh under typical conditions[44]). Total storage as at December 2010 was estimated by NG to be 49,818[45] GWh. The Rough share of total gas storage is now therefore 76 per cent (ie the same as it was in 2003). Significant new storage facilities are proposed for development. However, the economic viability of new storage facilities is currently uncertain and most of these developments have not been given final investment approval.[46] Storage is discussed further in Appendix B, paragraphs 59 to 77.

TABLE 1 **Capacity of principal Great Britain storage facilities in 2003 (Table 4.1 of 2003 report)**

Facility	*Owner*	*Space*		*Injection*			*Withdrawal*			*Time to cycle†*
		GWh	*%*	*GWh/d*	*%*	*Time to fill* Days*	*GWh/d*	*%*	*Duration* Days*	*Days*
Depleted field										
Rough	Centrica	30,344	76.2	160	17.6	190	455	21.6	67	4
Hatfield Moor‡	Scottish Power	1,260	3.2	45	5.0	28	55	2.6	23	2
Salt cavity										
Hornsea	SSE	3,495	8.8	22	2.4	159	195	9.3	18	10
Hole House	EdFT§	300	0.8	60	6.6	5	30	1.4	10	2
Five LNG sites	Transco	3,846	9.7	20¶	2.2	192	769	36.5	5	39
Diurnal storage#	Transco	600	1.5	600	66.2	1	600	28.5	1	2
Total		39,845	100	907	100		2,104	100		

Sources: Centrica, Ofgem, Transco and operators.

*At nominal daily withdrawal or injection rate.
†One day of withdrawal nominal rate plus time to replace withdrawn gas.
‡Injection rate for Hatfield Moor is an approximate CC estimate and withdrawal rate is taken from Transco's Ten Year Statement.
§Owned and operated through its subsidiary Energy Merchant Gas Storage (UK) Ltd.
¶LNG injection rates vary by site.
#CC estimate.

[37]Short-range storage facilities are facilities with the capability to deliver gas from their maximum stock at full capacity for less than five days. In Great Britain, SRS are LNG storage facilities, which are able to provide a high rate of deliverability but have very low injection rates, and therefore are generally used on the few coldest winter days.
[38]Medium-range storage facilities have characteristics which fall between those of Rough and the LNG storage sites and are defined as facilities with the capability to deliver gas from their maximum stock at full capacity for between 5 and 70 days.
[39]Long-range storage facilities, able to deliver gas from their maximum stock at full capacity for a duration of more than two months. As such, these facilities are particularly suitable to provide seasonal flexibility. Rough is the only facility of this type in Great Britain.
[40]Humbly Grove and Aldbrough.
[41]Dynevor Arms.
[42]Partington and Glenmavis.
[43]Avonmouth.
[44]Centrica told us that capacity was not fixed in practice but could vary—for example, a mild spring may allow injection to begin earlier in the year which would increase the space in that year. Centrica said that typically space at Rough had been around 36,000 GWh, but could be higher—for example, in 2009/10 space was 39.200 GWh . We note that the NG TYS 2010 report provides a figure of 37,905 GWh. Although Centrica's and NG's estimates of Rough's capacity vary, we do not consider the differences to be material to our analysis.
[45]NG TYS 2010.
[46]We note, for example, Centrica's decision to postpone investment decisions on storage development at Caythorpe, Bains and Baird. See Appendix B, paragraph 74.

3.22 Centrica operates in the upstream and downstream gas and electricity markets. Centrica provides gas supply to residential and business customers under the British Gas brand. Centrica Energy (CE) owns and operates gas production assets including gas fields on the UKCS, and also has capacity rights for gas transportation via the Interconnector UK (IUK) and for LNG regasification/import operations at Grain. Centrica operates gas-fired power stations for electricity generation and has a trading arm which procures energy for British Gas and other Centrica businesses.

Changes in the Great Britain gas market

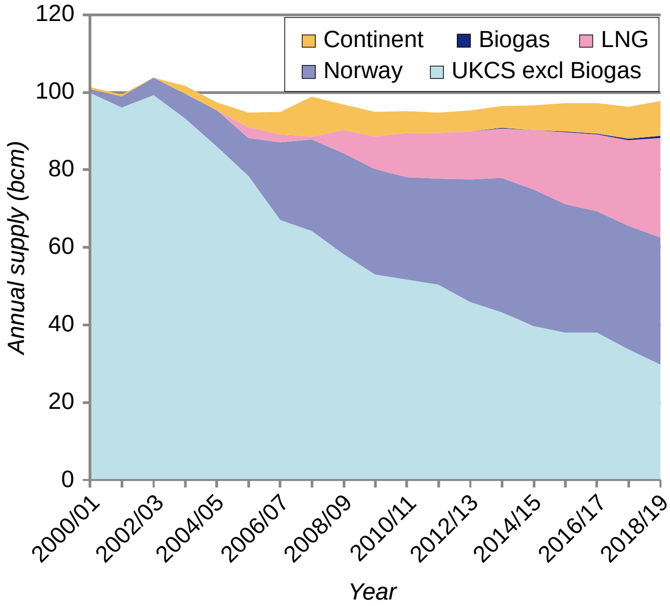
3.23 The sources of gas for the Great Britain gas market have changed significantly from the position in 2003. In 2003, gas produced from the UKCS accounted for 96 per cent of supplies into Great Britain.[47,48] However, in reality Great Britain was more than self-sufficient because 12 per cent of the gas delivered into Great Britain was exported to the Continent through an interconnector (IUK), a pipeline that links Great Britain with Zeebrugge in Belgium.

3.24 By 2009, Great Britain had become a substantial net importer of gas. UKCS production still accounted for 60 per cent of supplies into Great Britain and IUK was still a net exporter (7 per cent of supply was exported). However, new import facilities were responsible for the balance of supply. Norwegian imports had increased, including imports through pipelines built since 2003,[49] and accounted for 27 per cent of supply. A new import pipeline had been built that linked Holland to Great Britain (the Bacton Balgzand pipeline (BBL)) that accounted for 7 per cent of imports. LNG,[50] delivered through new import terminals built at the Isle of Grain and Milford Haven, accounted for 6 per cent of imports. LNG import capacity is forecast to provide a substantial part of Great Britain demand in future, as the decline in UKCS gas continues. This is illustrated in Figure 2.

[47]The balance came from Norway.
[48]Based on NG TYS 2009.
[49]Langeled pipeline and Tampen link.
[50]Liquified natural gas, which is liquefied at source then transported in large ships with insulated containers for the LNG to import terminals, where the liquid gas is then regasified for local use.

FIGURE 2

UK gas supplies from 2000 to 2009 and forecast to 2019



Source: NG TYS 2009.
Note: Continent includes imports through the BBL line and imports through the interconnector (but not exports through the interconnector).

3.25 Centrica said that new sources of gas that had become available to Great Britain since the 2003 report—including additional Norwegian imports, extra IUK import capacity,[51] the BBL pipeline and LNG import facilities—provided both seasonal shape and short-term flexibility in competition with gas storage, as UKCS sourced flexible gas declined. It said that taken together, the new sources of flexibility accounted for over 40 per cent of the maximum daily supply capacity of the British gas market and this represented a substantial change to the competitive landscape.

3.26 In addition, Centrica said that its own position had developed. Its supply of flexible gas from UKCS sources (most notably the Morecambe fields) had declined and its flexible Sean supply contract would expire in 2011. It said that its long-term interruptible (LTI) sales contracts,[52] which were considered to provide significant short-term contractual flexibility in the past, were also all expired or close to expiry (with the last contracts expiring in 2011). Centrica said that as a result its share of flexible gas had fallen significantly.

The European Union Third Internal Energy Market Package

3.27 The TIEP came into force on 3 September 2009, although the regulation containing provisions relating to storage facilities (paragraph 3.28) applied from 3 March 2011

[51]The OFT advice said that Centrica considered that in 2003 the IUK was still a fairly young facility and had not established a very clear pattern of operations. Since then, increased imports from other sources have supported the continued contribution of the IUK to flexibility, in that the interconnector has typically been exporting gas in summer and importing in winter (effectively giving additional shape to the levels of gas consumed in Great Britain) and has been able to respond to short-term variations in the supply/demand balance on each side. For the purposes of estimating market shares, Centrica estimated the maximum IUK deliverability at 512 GWh/day (compared with its current capacity of 780 GWh/day), based on IUK's maximum historical inflow observed on 22 February 2006. Centrica considered this approach conservative.
[52]Interruptible contracts are contracts with an industrial or commercial customer that entitle a supplier to interrupt supply of gas to that customer, usually for up to a given number of days each year. This releases gas for the supplier to supply to other users.

(this was also the deadline for transposition of the directive relating to storage into UK law—see further paragraph 3.29 below).[53] The overall aim of the package is to further the development of an open and fair internal energy market established through previous EU legislation. The package has a number of objectives including enhancing consumer protection, improving the functioning of the energy markets, enhancing cross-border cooperation, and strengthening the role of independent regulators. Key aspects of the TIEP include separating production and supply from transmission networks; facilitating cross-border investment and trade in energy; and achieving greater market transparency on network operation and supply. The approach adopted in the TIEP is that it provides minimum standards rather than maximum harmonization of legislation.

3.28 The TIEP comprises two Directives and three Regulations. The following legislation includes provisions relating to storage facilities:

(a) Directive 2009/73/EC (the ‘Gas Directive’); and

(b) Regulation (EC) No 715/2009 (the ‘Gas Regulation’).

3.29 EU Directives must be transposed into national law via national implementing measures. The nature of directives is that they set out the objectives the member states must achieve but allow the member states some flexibility in implementation. The Department of Energy and Climate Change (DECC) is responsible for transposing the Gas Directive into UK domestic legislation. Directives set a deadline by which member states must have national implementing measures in force. In the case of the Gas Directive, the deadline specified was 3 March 2011. As noted above, the Gas Regulation came into effect on 3 March 2011. EU regulations directly apply in national member states when they come into effect and no national implementing measures are required to transpose the obligations in the regulations into UK law. However, it is often the case that member states will take some legislative measures to make any changes to existing national law required to ensure compatibility with the EU regulation. Amendments to national law may be necessary to make EU regulations workable and enforceable in the UK. While DECC is responsible for the implementation required for the TIEP in the UK, Ofgem will be designated as the national regulatory authority tasked with monitoring and enforcement of TIEP requirements relating to gas storage. DECC will take steps to ensure that Ofgem has the ability to enforce the directly applicable provisions of the Gas Regulation.[54]

3.30 In relation to gas storage, the TIEP enhances the provisions on non-discriminatory third party access, increases transparency requirements, enhances the monitoring duties and enforcement powers of national regulatory authorities and contains new requirements on storage system operators including legal and functional unbundling and confidentiality of information.

3.31 The CC must consider the implications of the introduction of the TIEP for the Undertakings. If any aspects of the Undertakings are in conflict with the Gas Regulation, the Gas Directive, or the UK implementing measures we would need to release or vary the specific provisions to avoid incompatibility with the TIEP, the provisions of which are binding on the UK in accordance with the principles of EU law. Both the Gas Regulation and Gas Directive are minimum harmonization measures. This means that the Gas Regulation and the Gas Directive simply set the minimum requirements in respect of the areas covered. If a member state wishes in its national

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[53]Corrigendum to Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005.
[54]See DECC Government Response document of January 2011.

law to set further requirements in relation to any area covered by the Gas Regulation or the Gas Directive, it is free to do so. Therefore, having addressed any areas of conflict, we also need to consider whether the TIEP represents a sufficient change of circumstance such that the Undertakings (or aspects of the Undertakings) are no longer appropriate or whether there remains a role for the Undertakings (or aspects of the Undertakings) above the minimum TIEP requirements to address any elements of the adverse findings that persist from the 2003 report.

The OFT's advice to the CC

3.32 The Enterprise Act 2002 (the Act) came into force on 20 June 2003. It made provision for dealing with existing undertakings and orders accepted or made by a relevant Minister following a report from the CC under the FTA. The Act transferred power to release, vary or supersede specified undertakings from the Minister to the CC.[55] The Act preserved section 88(4) of the FTA, which, as preserved, sets out the duty of the OFT to keep under review undertakings and to consider whether, by reason of any change of circumstances, existing undertakings are no longer appropriate and either the relevant parties can be released from the undertakings or the undertakings need to be varied or superseded. If the OFT concludes that changes may be required to the existing undertakings, it advises the CC. The CC then takes the decision as to whether to vary, release or replace the undertakings.

3.33 Following its review of the Undertakings, the OFT concluded that changes of circumstance since 2003 meant that the CC should review the Undertakings. The OFT said that this was based on:

(a) a change in market conditions; and

(b) a change in the legal framework with the introduction of the TIEP.

3.34 The assessment of market conditions focused on changes in Centrica's shares of supply in the flexible gas market. The OFT considered that industry conditions had changed since the Undertakings were implemented and its assessment showed a fall in Centrica's shares of supply in almost all scenarios. However, the OFT noted that difficulties in accurately and uniquely defining the gas flexibility market meant that the size of the fall was unclear. The OFT did not conclude on whether Centrica continued to have market power as it believed that the CC was best placed to carry out the competitive assessment. Nevertheless the OFT considered that there was sufficient evidence to indicate a change in circumstances with regard to market conditions.

3.35 With regard to the TIEP, the OFT's view was that although there was uncertainty about the impact of the TIEP on the Undertakings, some aspects of the Undertakings might no longer be appropriate. In particular, the OFT perceived that the capacity allocation mechanism set out in the Undertakings for allocating capacity within the Centrica group (namely excluding Centrica from the primary sales process, but allowing the reservation of up to 15 per cent of capacity to Centrica) was inconsistent with Article 17 of the Gas Regulation. The OFT considered that implementation of the TIEP would be a relevant change in circumstance.

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[55] As noted above, the Undertakings have been so specified.

4. The process for our review

4.1 A memorandum of understanding between the OFT and the CC on the variation and termination of undertakings (MOU) sets out the process that the OFT and the CC usually follow in such reviews.[56]

4.2 As a result of the timing issues involving the UK implementation of the TIEP and the complexity of this review, we have agreed with the OFT to depart, to some extent, from the usual process set out in the MOU in effect at the time the review commenced. In particular:

(a) the OFT referred the review to us at a more preliminary stage than envisaged by the MOU as it envisaged that the CC would be best placed to carry out the competitive assessment;

(b) the OFT published its final advice after sending its recommendation to the CC, rather than delaying publication until our provisional decision, because we intended to interact more extensively with the parties;

(c) since the OFT's advice we have received a number of detailed representations from Centrica and Ofgem and have received representations and views from a number of third parties, which we have taken into account; and

(d) the Chairman of the CC appointed a separate Group chaired by himself to conduct the review, because of its complexity.

4.3 Consistent with the principles of the MOU, we have utilized evidence presented in the OFT's report. We have also assessed information received from Centrica, Ofgem and other parties during our review. Before the publication of the provisional decision regarding change of circumstance leading to possible variation/release of the Undertakings on 12 January 2011 (the 12 January provisional decision)[57] we held staff hearings with a number of third parties including NG and major gas suppliers and traders and held Group hearings with Centrica and Ofgem.

4.4 At the time of publication of the 12 January provisional decision we also published a notice of possible variations to the Undertakings (the Variations Notice). We received a number of responses to the Variations Notice. We also received a detailed response from Centrica to the 12 January provisional decision which we have taken account of in this document and in a detailed appendix (Appendix G). On 8 March we published our provisional decision on variations to the Undertakings which took into account responses to the Variations Notice. We received a number of responses which have been taken into account in this final report.

4.5 On 14 March we adopted interim arrangements in relation to sale of capacity for storage year 2012/13[58] and the CC consented to the transfer of the York field from CSL to CE .

[56]The OFT and CC MOU, published on 17 February 2009, is available at www.oft.gov.uk/shared_oft/595316/595319/oft1060.pdf. The MOU was updated on 10 March 2011. References in this report are to the 17 February 2009 version.
[57]Provisional decision regarding changes of circumstance leading to possible variation/release of the Undertakings, published 12 January 2011.
[58]The interim arrangements were put in place pending the CC concluding its processes on this review, which will be by the acceptance by the CC of variations to the Undertakings.

5. The scope of our review

5.1 It is important in a review for change of circumstances to consider the context of the investigation. The Undertakings were put in place in 2003 to address the adverse effects of a merger. In 2003, the Undertakings were considered by the CC to be a necessary and measured response to those adverse effects and were subsequently adopted by the Secretary of State. More onerous alternative remedies, such as divestment, were considered by the CC and rejected. Our approach in this review is not that of a merger or market investigation. Our task is not to re-examine the conclusions reached in 2003 in relation to evidence then available. We have taken these conclusions as our starting point. Our scope has been to examine whether there has been a change in circumstances which has been sufficient to cause us to determine that the Undertakings (or any aspects of the Undertakings) are no longer appropriate and the Undertakings should be released, varied or superseded.

5.2 Our review has been conducted in two parts which ran concurrently:

(a) The first part of our review considered whether any change in market conditions necessitated a change in the Undertakings. This involved an in-depth assessment of the market to understand whether Centrica's market position had changed sufficiently such that the Undertakings needed to be varied or released. We also considered whether developments since 2003 had caused the concerns originally identified in 2003 in relation to Centrica's use of Rough to no longer be applicable.

(b) The second part concerned the TIEP. We considered whether the TIEP introduced sufficient safeguards against the adverse findings we considered still persisted from 2003 to enable us to release the Undertakings. Then we considered, as we were minded to maintain the Undertakings, whether there were any areas of conflict between the Undertakings and the TIEP or problems in interaction which needed to be addressed.

5.3 We also considered Centrica's submissions on adverse effects of, and practical difficulties arising from, the Undertakings to identify if any variations were appropriate.

6. Market assessment

6.1 In this section we focus on whether the Undertakings should be varied or removed because of changes in the market, and in particular whether the investment in new import capacity means that the position of Rough and Centrica has changed.

Centrica's view on changes since 2003

6.2 As discussed in paragraphs 3.25 and 3.26, Centrica told us that it no longer had market power in the wholesale supply of gas because of:

(a) new import capacity in Great Britain, in particular the BBL pipeline, the Norwegian links and LNG imports;

(b) the decline in Centrica's UKCS volumes; and

(c) the expiry of Centrica's interruptible sales contracts.

6.3 Overall Centrica said that its share of the market for winter flexible capacity, as defined in 2003, had fallen from 46 per cent in 2003 to 18 per cent in 2009/10.

Centrica told us that in its view this fall in share was driven by the decline in UKCS flexibility (in which Centrica had a high share), which had been replaced by a number of sources of imported flexibility (in which it considered it had little, if any, share). This is illustrated in Table 2, which shows Centrica's updated estimates of the share of winter flexible capacity held by each gas source.[59] The table shows Centrica's view of the total increase in flexible capacity since 2003 and the amount of flexible capacity that each source provides over the winter. Compared with 2003, the key changes are the investments in capacity in LNG import facilities, the Norwegian links and the BBL pipeline offset by the decline in UKCS.[60]

TABLE 2 **Centrica's view of the change in maximum flexible capacity between winter 2002/03 and 2009/10***

GWh	*Maximum Dec–Mar flexibility, 2002/03*	*% total, 2002/03*	*Maximum Dec–Mar flexibility, 2009/10*	*% total, 2009/10†*
Market				
Storage	**39,245**	**15.7**	**45,332**	**11**
Rough	*30,344*	12.1	*34,265*	8.6
MRS	*5,055*	2.0	*9,804*	2.4
LNG	*3,846*	1.5	*1,263*	0.3
Supply	**166,399**	**66.6**	**338,533**	**85**
Beach	117,645	47.1	151,266	37.8
—UKCS			*76,568*	19.1
—NCS			*74,698*	18.7
Continent & LNG imports	48,754	19.5	187,267	46.8
—IUK		19.5	*51,000*	12.7
—BBL			*44,371*	11.1
—LNG			*91,896*	23
Demand	**44,305**	**17.7**	**16,165**	**4.0**
—Interruption	*44,305*	17.7	*16,165*	4.0
—Power switch to oil				
Total market	**249,948**	**100**	**400,030**	**100**
Centrica total flexibility	**115,827**	**46.3**	**72,738**	**18.2**

Source: 2003 report and Centrica.

*December to March flexibility was defined in the 2003 report as the difference between maximum capacity for the December to March period and average 121-day net supply over a full year (daily average times 121 days, the length of the December to March period):

- Maximum storage capacity was based on total space (in all cases duration is less than 121 days) and average net supplies are zero.
- Beach and interconnector were assumed to operate at maximum for the full 121 days of the December–March period (except for Sean which is assumed to produce at maximum for 100 days).
- Interruptible capacity assumes 45 days' interruption.

Average net supply for beach, interconnector and interruption was adjusted for effect of maximum rather than actual use over December to March (hence ratio of December to March to daily flexibility is less than 121).

†These updated figures were provided by Centrica. In estimating these figures, Centrica did not adjust average net supply for beach, interconnector and interruption using maximum rather than actual use over December–March.

6.4 There are differences between the methodology used by Centrica compared with that used by the CC in 2003.[61] Centrica provided figures that showed that using the CC's methodology reduced total 2009/10 flexible capacity from 400 TWh to 330 TWh. Rough's share of this would be 10.9 per cent, from 8.6 per cent. Centrica's overall

[59]We note that Centrica's estimate of storage capacity in 2009/10 is less than the storage capacity estimate of NG in its TYS 2010. NG gave a storage capacity figure of 4.6 bcm (49,818 GWh) in its TYS 2010.

[60]If LNG were excluded from this market definition, Rough's share would increase to 11.1 per cent compared with 12.1 per cent in 2003. If the Norway links or BBL were excluded, Rough's share would increase to 10.5 and 9.6 per cent respectively.

[61]Centrica defined flexible capacity to be the difference between maximum deliverability and average yearly flows. In 2003, the net beach, interconnector and interruption annual average supplies were adjusted using maximum rather than actual use for December to March. Centrica said that it did not believe this type of adjustment was appropriate because the purpose of flexibility measures was to capture the extent that sources of gas could deliver more than the 'standard' amount that they must deliver across the year, which Centrica said captured the idea of excess capacity (ie the presence of sources that are 'overbuilt' and can therefore deliver more on high-demand days than across the year). Centrica said that the CC's 2003 methodology assumed that more gas was supplied to the country than there was demand for, and in so doing artificially reduced the market size by reducing the contribution of these long-duration sources.

flexible share would increase from 18.2 to 20.7 per cent. The full results are set out in Appendix D, Table 1.

6.5 Centrica also considered that convergence of the market prices in Great Britain and those in European hubs was evidence that the Great Britain wholesale market for gas was now better connected to the wider geographic market, with imported gas flows better able to respond to tightening in the Great Britain gas market than in earlier years. It said that the relationship between Zeebrugge and NBP prices was less tight in 2003 and that at that time there was very limited liquidity on European spot markets, with the Zeebrugge hub 'the only game in town'. It said that the Netherlands TTF trading hub was now larger than Zeebrugge and growing fast, and there were a number of new, fast-growing trading hubs elsewhere in Europe, particularly in Germany.

Our assessment of the present position of Centrica

6.6 To assess Centrica's position we considered three areas:

(a) the broader upstream/wholesale position of Centrica;

(b) the position of Rough in the supply of flexible gas; and

(c) the position of Centrica in the domestic retail market.

6.7 We review Centrica's broader interests in wholesale gas in paragraphs 6.8 to 6.12. We review Rough's position in the supply of flexible gas in paragraphs 6.13 to 6.76. Finally, our review of Centrica's domestic retail market position is in paragraphs 6.77 to 6.79. We provide a summary in paragraph 6.80.

Centrica's overall position in the wholesale supply of flexible gas

6.8 In 2003, the CC looked at Centrica's overall position in the wholesale supply of flexible gas including its ownership or control of other gas sources. Centrica was estimated pre-merger to have 34.2 per cent of winter flexibility capacity and 46.3 per cent with the acquisition of Rough. The CC assessed Centrica's market share on the basis of its long-term position, including its equity and contractual share of beach swing, its long-term rights to use of the interconnector and its share of interruptible contracts.

6.9 Centrica said that it was a combination of Rough's share with a substantial portfolio of existing flexible gas and Centrica's downstream position that gave rise to the competition concerns in 2003. Centrica said that Rough's market share had not much changed since 2003, remaining at about 10 to 12 per cent on most measures. It said that its share of winter flexible capacity excluding Rough had fallen to 11 per cent in 2008/09 and 10 per cent in 2009/10 and that this would fall further with the expiry of the Sean supply contract in 2011.[62]

6.10 We disagree with Centrica's assessment of the CC's 2003 findings. As noted in paragraph 3.6, we consider that (with the exception of investment considerations, where Centrica's upstream position was relevant) the adverse findings in the 2003 report clearly focused on the position of Rough in conjunction with Centrica's retail position, and not on the combination of Rough's share with a substantial portfolio of existing

[62]This decline in Centrica's interests reflects the general decline in the production of UKCS fields.

flexible gas. The CC in 2003 considered in detail whether a withholding concern arose by virtue of the combination of Rough with Centrica's other sources of flexibility, but ultimately rejected that concern.

6.11 In response, Centrica said that we had failed to appreciate the weight given in the 2003 report to its overall position in the supply of flexibility. It said that it fundamentally disagreed with us and that the CC's view on the significance of Rough in 2003 was clearly influenced by Centrica's share of all the sources of flexibility. Centrica disagreed that judgements about the position of Rough were not significantly based on market share in the market for winter flexible capacity. Centrica said that the market definition discussion in the 2003 report clearly extended to other forms of flexibility and it referred us to the methodology set out in the non-horizontal merger section of the recently published CC and OFT joint merger assessment guidelines (MAG).[63]

6.12 We consider that we have accurately reflected the weight given in the 2003 report to Centrica's overall position in the supply of flexibility. We note the decline in Centrica's overall share of flexibility, but this is not material to our market assessment.[64] In 2003, a market for flexible gas was defined to include all sources of flexibility on the basis that they all made some contribution to the summer–winter[65] spread which was said to influence the price for Rough.[66] However, the CC said that in assessing the merger's effects, it took account of the fact that some sources of gas were much weaker substitutes for Rough than others.[67] The MAG was not in force at the time of the 2003 investigation and did not inform the decision;[68] however, we consider that the approach taken in 2003 was consistent with our current guidelines in not placing undue emphasis on market shares in a broadly-defined market.[69] This is discussed further in Section 7.

Rough's position in the wholesale supply of flexible gas

Our approach

6.13 We explained in paragraph 5.1 that we have taken the conclusions in the 2003 report as our starting point. The scope of our review has been to examine whether there has been a change in circumstance which has been sufficient to cause us to determine that the Undertakings (or any aspects of the Undertakings) are no longer appropriate and should be released, varied or superseded. We therefore take as our starting point the CC's finding that Rough had market power in 2003 and in this review we focus on the changes that have taken place since then and the impact these may have had on Rough's position in the supply of winter gas.

6.14 In 2003, the CC said that Rough, Hornsea and Morecambe were more responsive to price and the UKCS (excluding Morecambe) and the interconnector were unresponsive to day-to-day price changes.[70] The CC said that the correlation between the flows of Rough and other sources may suggest that flexible use of Rough was more similar

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[63] www.competition-commission.org.uk/about_us/our_organisation/workstreams/analysis/pdf/100916_merger_assessment_guidelines.pdf.
[64] However, in Section 7 we consider the impact of the change in Centrica's overall position on the investment theory of harm.
[65] Defined to the difference between the Q1 forward price and the average of the forward Q2 and Q3 prices at the time Rough capacity was being bought.
[66] In paragraph 5.42*(d)* of the 2003 report the CC noted that forward market prices are themselves influenced by the expected available capacity of Rough and other sources of flexibility, while the price of Rough and other sources of flexibility will be influenced by forward market prices.
[67] 2003 report, paragraph 2.51.
[68] The previous version of the CC merger reference guidelines was published in June 2003.
[69] See section 5.3 of the MAG.
[70] 2003 report, paragraphs 5.62 & 5.63.

to that of Hornsea and Morecambe and that these sources were closer substitutes for Rough.[71] We have taken this into account in assessing Centrica's position now.

6.15 Centrica said that excess capacity was at the heart of flexible gas supply (paragraph 6.4). However, we note that capacity is only the potential to deliver gas and it does not tell us how the capacity is used. In 2003, we also looked at market shares based on the actual use made of sources of flexibility both over the winter and on a daily basis. The value of Rough to the market results from a combination of its size (it can deliver around 20 per cent of the additional gas required in the winter) and its ability to respond to daily variations in demand.

6.16 The responsiveness of the different sources of gas to daily prices is important because the demand for gas, particularly from domestic customers, varies from day to day, sometimes by a large amount, to reflect weather conditions. Retail suppliers therefore need sources of gas that will give them daily flexibility across the winter to allow them to react to demand and price changes which are often significant. It is the ability of the various sources of gas to provide daily flexibility across the winter that we explore when looking at the behaviour of flows. This distinguishes Rough, and some other sources, from some storage facilities that can only supply on the few days when most needed. The price responsiveness of flows shows the effect of a number of factors, only one of which is the availability of capacity to deliver the gas.

6.17 Our approach in this inquiry has been to assess evidence about the effect of relevant changes on Rough's ability to influence its price, as a reflection of its market power. In particular, we looked for evidence that the wholesale supply of gas to Great Britain in the winter months is now more price responsive than in 2003. We considered:

(a) the physical characteristics and behaviour of different gas sources, as evidence of the extent to which these compete with Rough in providing flexibility;

(b) how similarly different gas sources respond to price changes as further evidence on how closely they act as substitutes for Rough; and

(c) developments in SBU prices to assess whether these provide evidence of the possible development of competition in the supply of flexible gas.

6.18 We note that Centrica is of the view that the relevant question when considering the impact on the market of its ownership of Rough is whether Centrica's overall up-stream position has changed since 2003.[72] Centrica said that the growth in imports, associated with a fall in the Q1–summer gas price spread, demonstrated that these imports competed with domestic supplies and, in particular, provided a meaningful alternative source for meeting flexible demand. That retail suppliers of gas have access to new sources of gas and procure gas from these sources is not, in our view, sufficient to conclude that Rough no longer has market power. For Rough not to have market power, it would need to be the case that an increase in the demand for Rough capacity had no effect on its price.

The physical characteristics and behaviour of different sources of gas

6.19 The first part of our assessment of Rough's position in the wholesale supply of flex-ible gas is to consider the physical characteristics of different sources of gas and their behaviour. We consider the extent to which different sources of gas (in particu-

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[71] 2003 report, paragraph 5.64.
[72] Centrica said that the theories of harm in 2003 related to the market power of Centrica in Great Britain.

lar new import capacity) can act as a substitute for Rough in providing flexibility. We consider the present physical capacity of gas sources that supply Great Britain and whether there is evidence of capacity, market or other supply constraints that would limit the responsiveness to market conditions. We then consider how Rough is operated in supplying gas across winter. We also repeat the 2003 analysis of the correlations in flows between Rough and other sources of gas.

Sources of gas and supply constraints

Average daily winter capacity and comparison with flows

6.20 In this section, we examine how winter capacity and utilization has changed since the 2003 report. Centrica said that investments in new import capacity had provided Great Britain with greater access to European and international sources of flexibility (paragraph 6.3). Table 3 shows average daily physical capacity, as estimated by Centrica, in the winter months (December to March) against average daily flows for each source of gas in winters 2002/03, 2008/09 and 2009/10. These figures show that investment in new import infrastructure has resulted in a substantial net increase in physical capacity to deliver gas to Great Britain. Interruptible contracts have not been included in this analysis since they are being phased out.[73,74]

6.21 This analysis suggests that on average physical capacity was not a constraint in importing gas and there was spare capacity on IUK, LNG, BBL and the Norway links. 55 per cent of LNG import capacity was used in winter 2009/10, a substantial increase from 2008/09. Substantial amounts of LNG import capacity have been added since 2003 and LNG is a significant potential change to Great Britain's gas supply (see Figure 2). In December to March 2009/10, IUK net import flows averaged 11 per cent of capacity compared with 2008/09 when there was a net export of 25 per cent of capacity. Norwegian flows in 2009/10 were affected by supply disruptions. BBL operated at a higher capacity utilization in winter 2009/10 compared with 2008/09 (but there were European supply issues affecting the 2008/09 figure).

[73]Large power stations will continue to 'self-interrupt' by switching to coal power at times of high gas prices. Both RWE npower and [a major supplier] noted that they could flex their power stations' use of gas to coal/oil if it was commercially better for their businesses (at a group level) overall to be making this switch.

[74]These figures will understate normal utilization of particular facilities in winters where flows were subject to disruption. The relevant disruptions to supply are listed in Appendix D, paragraph 33. These periods of disruption may have reduced average winter flows for these facilities.

TABLE 3 **Average daily December to March capacity and average daily December to March flows by source of supply**

	2002/03			*2008/09*			*2009/10*		
	(a) Average daily capacity (GWh/d)	*(b) Average daily flows (GWh/d)*	*Flows as a percentage of capacity (b/a %)*	*(a) Average daily capacity (GWh/d)*	*(b) Average daily flows (GWh/d)*	*Flows as a percentage of capacity (b/a %)*	*(a) Average daily capacity (GWh/d)*	*(b) Average daily flows (GWh/d)*	*Flows as a percentage of capacity (b/a %)*
Storage									
Rough	251	229	91	283	186	66	283	275	97
MRS	42	28	67	69	20	29	80	50	63
SRS	34	13	38	23	12	52	10	7	70
Imports									
Norway	-	-	-	1,425	1,091	77	1,425	1,003*	70
IUK	247	–207	–84	512	–129	–25	512	57	11
BBL	-	-	-	445	281†	63	445	339	76
LNG	-	-	-	1,009	129	13	1,009	553	55
UKCS§	4,426	3,699	84	2,283	2,029	89	2,203	1,766	80
Total	**5,000‡**	**3,762**	**75**	**6,049‡**	**3,619**	**60**	**5,967‡**	**4,049**	**68**

Source: Centrica.

*There were interruptions to Norwegian links in January 2010.
†Disruption due to January 2009 Ukraine crisis.
‡Ex interruptible supplies 417 GWh/day in 2002/3, 145 GWh/day in 2008/9 and 200 GWh/day in 2009/10.
§In 2002/03, UKCS included 191 GWh of average daily flows imported from Norway.

Flows compared with physical capacity on high price days

6.22 We compared flows and capacity on high-price days to establish whether physical capacity was a constraint on gas supply to Great Britain when prices were highest. For each winter (November to March),[75] we identified the 38 highest NBP day-ahead price days[76] and compared flows delivered by each source with Centrica's estimates of maximum daily deliverability (ie physical capacity). The results, in Appendix D, paragraphs 35 to 38, suggest that generally physical capacity was not fully utilized on each of the IUK, BBL and Norwegian links, even when prices were highest.

6.23 On these high price days: Norwegian flows have never exceeded around 1,250 GWh/day (compared with 2009 physical capacity of 1,425 GWh/day, ie 88 per cent); and the BBL flows rarely exceeded 400 GWh/day[77] (compared with 2009 physical capacity of 445 GWh/day, ie 90 per cent). We also observe that Centrica's capacity assumption for the IUK for the purpose of calculating market shares is based on maximum observed flows, rather than physical capacity.

Our review of the extent that other sources of gas provide flexibility

6.24 In addition to the physical capacity of import facilities we need to take into account market or contractual factors that will determine the potential flexibility of these sources. In reviewing the supply characteristics of the various sources of gas we received submissions from, and spoke to, market participants (Ofgem, retail gas businesses, a market information provider, producers etc) and reviewed industry reports to assess views on winter capacity versus flows. The following paragraphs summarize the key points and further details are in Appendix B.

[75] We decided not to limit our investigation to December to March based on observed Rough withdrawals in the month of November.
[76] As a proxy for high-demand days.
[77] Data provided by Centrica gives a maximum flow on the BBL of just over 400 GWh/day (408 GWh/day). Flows exceeded 400 GWh/day on 17 days, all in winter 2007/08.

- *UKCS*

6.25 UKCS supplies have declined substantially since 2003 and are projected to continue to do so (Figure 2). We understand that the UKCS now supplies at a substantially flat rate across the year, with the exception of Sean and Morecambe.

- *LNG*

6.26 We have reviewed the LNG market in detail in Appendix C. There is general agreement that Great Britain is competing in a global market for LNG, and that prices on a global basis are likely to drive the availability of cargoes to Great Britain. Worldwide there is a surplus of regasification compared with liquefaction capacity. We were told that LNG could represent a source of seasonal flexibility as Great Britain prices are higher in the winter which may attract cargoes.[78] However, there is little quantitative evidence as the trend has been one of general increase in LNG supply as import capacity has increased significantly in 2009.[79]

6.27 There are significant potential constraints on Great Britain's ability to import LNG seasonally. Great Britain buyers do not generally have fixed contracts for LNG supply unlike most other markets including Europe. LNG demand in other parts of the world (with fewer alternative sources of gas) is stronger. Cold winters affect the northern hemisphere at similar times. Owners of capacity rights have worldwide portfolios to consider and not just Great Britain.[80] Supply of LNG is also subject to shocks such as the demand from Japan for more LNG as a result of the impact of the March 2011 tsunami on its nuclear power stations. Achieving seasonal flexibility from LNG may therefore require a high price to overcome these constraints. Cargoes will come if the price is right, but it is the price relative to other markets that is important.

6.28 There are also issues over the ability of LNG to provide short-term flexibility. We were told that LNG logistics chains and the nature of LNG contracts meant that LNG supply in Great Britain was unlikely to represent a sustainable source of short-notice flexibility compared with traditional gas storage.[81] We explored with parties whether storage at LNG terminals may present another source of short-term flexible gas.[82] Transmission rates from LNG storage at import terminals can vary[83] but there are constraints. We were told that the LNG storage capacity was often only able to accommodate one or two cargoes and therefore if shipping schedules were tight the gas would need to be transmitted rapidly to make space for the next cargo. Use It Or Lose It rights (UIOLI—which ensures that unused capacity must be made available for others to bid for) also made it difficult to plan to vary the rate of transmission.[84] We have seen no strong evidence that a party could rely on the availability of stored LNG to release in response to price or demand changes.[85]

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[78] See Appendix C, paragraph 48.
[79] See Appendix C, Figure 3.
[80] Whilst there is a secondary market for LNG capacity rights, arranging cargoes to make use of these is not straightforward—see Appendix C, paragraphs 36–39. Also SSE (which does not have primary capacity rights) considered the LNG market to be difficult to arrange supplies from compared with buying storage space from Rough.
[81] Centrica told us that unless one was lucky enough to find a divertible tanker on the high seas, it would take a minimum of seven to ten days to arrange an LNG cargo. It was Centrica's understanding that typically, taking account also of lead times and loading, it would take around 30 days in total from sourcing the cargo to delivery (see Appendix C, paragraph 54).
[82] See Appendix C, paragraphs 52–62.
[83] However, we note that NG, in its *Gas Transportation Ten Year Statement 2010*, recognized that some use of storage to vary LNG output had occurred in 2010.
[84] Appendix C, paragraph 59.
[85] See Appendix C, paragraphs 52–62.

6.29 Given the lack of operational history of Great Britain LNG import terminals, potential market constraints on availability and operational constraints on flexibility, we are unable to conclude on the level of LNG that is likely to be delivered into Great Britain compared with import capacity. The available evidence suggests that LNG is subject to significant market and operational constraints as a source of both seasonal and short-term flexibility in Great Britain.[86]

- *IUK*

6.30 Centrica told us that IUK had on average been an exporter of gas in each of the last four years and that this was due to increased imports from other sources. In its view, this increased the importance of the interconnector as a source of flexibility since it could switch between export and import without being constrained by the need to deliver gas across the year. It said that little of IUK imports were committed via longer-term contracts and flows were likely to reflect market conditions. Centrica told us that the interconnector had become more flexible since the 2003 report. Other parties generally agreed but felt that it was not always the case.[87]

6.31 There appear to be practical issues that reduce the price responsiveness of flows including: Continental contract commitments, access to interconnector capacity by importers, export supply arrangements with customers on the Continent (meaning that exports are not reduced) and security of supply restrictions on the Continent, particularly in earlier parts of the winter.[88]

- *Norwegian gas*

6.32 Norway has become an important source of winter gas for Great Britain. However, Great Britain buyers have few fixed contracts with Norway compared with European buyers and supplies to Great Britain are more uncertain. NG's Winter Consultation Report 2010/11 noted that when Norwegian production suffered supply losses in January 2010, most of the flow reduction was experienced in Great Britain rather than the Continent, probably as a consequence of contractual commitments[89] with Great Britain having a lower priority than the Continent.[90] Ofgem expected Norwegian gas flows to be driven principally by flexible clauses in Continental contracts, terms of Norwegian production permits and external factors such as production disruptions. Some parties said that Norwegian flows responded to price at some times and not at others.[91]

6.33 It appears to us that, in addition to Great Britain market prices, market conditions in other European countries will be major drivers of the amount of gas imported to Great Britain via the Norwegian pipelines and links. For example, the contractual arrangements that Norway has with other European countries are a factor determining the availability of winter gas for export to Great Britain. We consider this to be evidence that Norwegian gas is not a reliable price-responsive gas source.

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[86]We note that the Managing Director of CSL was reported by the BBC on 15 February as saying that because of the growth of LNG, more facilities such as Rough will be needed and that more of our gas will come in through the Continent or through LNG. 'That will tend to come in reasonably flat across the year, so storage is very useful to be able to move gas from the summer through to the winter when it is needed.'
[87]See Appendix B, paragraphs 11–17.
[88]See Appendix B, paragraph 11.
[89]The contracts are likely to be priced on an oil basis.
[90]NG *Winter Consultation Report 2010/11*, paragraph 76.
[91]Appendix B, paragraphs 42–46.

- *BBL*

6.34 Ofgem's view was that the gas coming through BBL operated predominantly at base-load but other views were that there was some seasonal flexibility. A large amount of the volumes behind BBL are linked to a contract between Centrica and GasTerra[92] for 8 bcm a year (86,640 GWh/day) and Centrica told us that it believed a large part of the gas due was delivered via the BBL (this contract has a seasonal shape). Other parties said that the BBL was not price responsive.[93]

- *Ofgem's views*

6.35 Ofgem considered that it would be unrealistic to expect certain supply sources to be able to flow at 100 per cent, particularly over a longer time period. Ofgem applied capacity coefficients to provide a reasonable estimate of supply that could be expected over a given period.[94] The capacity coefficients took account of economic factors such as the impact of contracts that caused observed flows to be lower than capacity. Ofgem's assumptions are detailed in Table 4 below, and explained in further detail in Appendix B.

TABLE 4 **Ofgem's capacity assumptions, 2009/10**

Source	*Capacity GWh/d*	*Seasonal de-rating factor %*	*Realistic supply GWh/d*
UKCS	2,152	[✂]	[✂]
Norway	1,341	[✂]	[✂]
LNG	1,328	[✂]	[✂]
IUK	739	[✂]	[✂]
BBL	434	[✂]	[✂]

Source: Ofgem.

Sources of gas and supply constraints: summary

6.36 Compared with 2003, there appears to have been a significant increase in the available physical capacity for delivering gas to Great Britain. Centrica's estimates of capacity suggest that total capacity has exceeded demand significantly, suggesting that the physical capacity would not be a constraint on importing more gas into Great Britain as an alternative to Rough.

6.37 However, when determining the amount of gas that may flow into Great Britain from a particular source, we need to take into account other considerations which may determine flows of gas in addition to physical capacity. In general, suppliers of gas have confidence that the Great Britain gas system will generate appropriate price signals to ensure that Great Britain secures supplies of gas from the sources at its disposal. However, the major issue is the price needed to secure those supplies given the physical, market and operational constraints on the various sources competing with Rough. Other factors—such as contractual pre-emption of supplies and demand conditions in other markets—are also significant in determining the price necessary to attract gas to Great Britain. For LNG, the key factor is global market

[92]NG referred to Gasunie: in 2005 Gasunie was divided into a gas trading company (GasTerra) and a gas transportation company which kept the name Gasunie.
[93]See Appendix B, paragraphs 29–32.
[94]Ofgem provided a discussion of its pivotality analysis in its consultation of Guidance on the Third Party Access regulatory regime for gas storage facilities in Great Britain.

conditions. For the IUK and Norway, there are often contractual commitments and practical problems associated with securing gas and booking delivery capacity.

Analysis of behaviour of flows

6.38 In 2003 the CC said that although it did not consider that all types of flexibility were equally good substitutes for one another, it had not identified a robust basis for excluding any sources from the market definition. The CC broadly accepted Centrica's argument that all sources of flexibility contributed to some extent to the summer/Q1 spread which was a significant determinant of the price of Rough.[95]

6.39 However, the CC then looked at the pattern of use of the flexibility sources included in the relevant market.[96] An analysis of daily flow and price data was said to suggest that flexible use of Rough was more similar to that of Hornsea and the Morecambe fields than to other UK fields or the interconnector, and that Hornsea and the Morecambe fields may be closer substitutes for Rough.[97] This assessment of the use of Rough compared with other gas sources was key to the 2003 conclusions on the importance of Rough as a source of flexibility. The report said that[98] although Rough had a capacity share of the total flexibility market of 10 to 12 per cent, and 20 per cent of use, some sources of flexibility were closer substitutes for Rough than others. The closest substitutes were Hornsea and other MRS sites, but withdrawals from these sites were only about one-tenth of withdrawals from Rough.

The characteristics of Rough

6.40 As was the case in 2003, Rough's defining characteristics are that it is reliable and flexible (in common with storage in general). But this flexibility is coupled with significant size—Rough currently represents 76 per cent of Great Britain storage by capacity, the same as 2003.[99] Since 2003 there has been a net increase in storage capacity but Rough is expected to continue to be by far the largest storage facility in the near future and to account for a large proportion of total storage capacity.[100] There was general agreement among third parties on the reliability of Rough compared with other flexibility sources. ICIS Heren said that Rough was probably still the single most important flexibility source in the Great Britain market. The ability to nominate at very short notice meant that Rough (like MRS) was able to react to small variations in the within-day price. ICIS Heren said that the likely response of new sources of supply to high prices was less easy to predict than Rough.

Evidence on how Rough has operated across the winter

6.41 The 2003 report identified that Rough was a source of gas over winter but was able to respond to demand variations in winter. We looked at the daily flows of gas from Rough across winter to gain insights into how flexibly it has operated. Table 5 shows an analysis of flows from Rough across each winter from 1999 to 2009.[101] The table shows the percentage of the total winter period that flows have exceeded a certain proportion of capacity. The analysis shows that although Rough operates at a high level of capacity for some of the winter (operating at above 90 per cent of capacity for

[95]2003 CC report, paragraph 5.43.
[96]2003 CC report, paragraph 5.60.
[97]2003 CC report, paragraphs 5.62–5.64.
[98]2003 CC report, paragraph 2.132.
[99]Paragraph 3.21.
[100]Using Centrica's assumption, 66 per cent until 2012/13.
[101]Winter is defined as December to end March.

19 per cent of the time), it operates flexibly across most of the winter (it operates at zero flow for only 6 per cent of the time[102]). This shows that Rough is not used to deliver a flat amount of gas across the winter (subject to its capacity) but instead varies the amount it delivers on a daily basis across the winter to respond to shorter-term demand and price variations. This supports the 2003 conclusion about the unique importance of Rough as a source of flexibility.

TABLE 5 **Flows from Rough, winters 1999 to 2009**

% of nominal maximum capacity withdrawn	*% time withdrawing above this proportion of nominal capacity*
100	10
90	19
80	27
70	36
60	42
50	49
40	57
30	65
20	74
10	82
0	94

Source: CC analysis.

Note: Nominal capacity assumed to be 455 GWh per day (ie 455 million SBUs). Flows reached a maximum of 109 per cent of capacity because the addition of Incremental Capacity means that the capacity is higher in practice.

The share of flexible gas delivered by Rough compared with other sources

6.42 We have looked at the pattern of flows for each source of gas over recent years. Graphs of average monthly flows by source from October 2005 to April 2010 are in Appendix D, Figures 1 to 3. All sources of gas have some seasonal variation, but there are noticeable differences. UKCS flows are relatively flat across the year with the exception of Morecambe and Sean, and the seasonal shape of gas flows from BBL is more pronounced than those from Norway and from IUK.

6.43 Table 6 shows Centrica’s analysis of the difference between actual average daily flows for December to March and average daily flows over the year and the share of each gas source. The 2003 report noted that the advantage of this measure was that it reflected market decisions and excluded capacity that customers were unwilling to pay for. However, it also noted that the use reflected market conditions in a given year and may not include capacity that customers had been prepared to pay for but did not need to use. Rough delivered similar amounts of gas to the amount it delivered across winter in 2003. There has been a marked decline in the additional amount of gas delivered by the UKCS, replaced by imported gas from a range of sources.

[102] This includes the effect of the Rough fire in February 2006 that reduced flows to zero for the rest of that winter.

TABLE 6 **Share of different types of flexibility over the last three winters compared with 2002/03 (update to Table 5.10 in 2003 report)**

per cent

	Gas flows from source			
Market	*2002/03*	*2007/08*	*2008/09*	*2009/10*
Storage	25.5	19.5	27.2	24.8
Rough	22.0	16.5	23.0	20.7
MRS	2.5	2.5	2.9	3.7
LNG	0.9	0.5	1.2	0.5
Supply	73.9	74.9	68.3	73.4
Beach	65.0	43.8	50.5	37.2
—UKCS		21.6	18.5	12.9
—NCS		22.2	32.1	24.2
Continent & LNG imports	8.9	31.1	17.8	36
—IUK		16.5	2.7	13.0
—BBL		13.5	6.5	10.8
—LNG		1.2	8.7	12.4
Demand	0.6	5.6	4.5	1.7
—Interruption	0.6	5.6	4.5	1.7
—Power switch to oil				
Total flexibility market (GWh)	118,259	123,968	103,335	151,797

Source: Centrica and 2003 report.

Notes:
1. Flexibility is measured as difference between actual supply for December to March period and average for 12 months to end of March.
2. Beach in 2002/03 included UKCS and imports from Norway via Vesterled pipeline.

6.44 The Undertakings mean that the total capacity of Rough must be made available to the market each year so the use of Rough will always be high. However, Table 6 also suggests to us that Rough remains an important and valuable source of flexibility. This view is supported by ICIS Heren (paragraph 6.40).

6.45 Table 6 also does not capture some of the within winter differences between sources. In 2003, we said that gas fields tended to produce at maximum during the peak winter months and were less likely than storage to be used as a source of day-to-day flexibility.[103] In 2003, the CC noted that there were factors that limited the daily responsiveness of IUK.[104] In this investigation, we note that BBL flows have a seasonal shape, but within winter do not respond to daily changes as much as other imports. Norwegian and IUK flows have seasonal shape and vary within winter.

Correlation of daily flows

6.46 In 2003, the CC looked at the pattern of daily flows for each source within the winter months compared with those of Rough and said that the results suggested that changes in supplies from Rough were more correlated with changes in supplies from Hornsea and Morecambe than from the aggregate of other UK fields or IUK.[105] In this investigation, we calculated correlations for both daily flows and the change in daily flows in winter for evidence of how similarly different gas sources responded to market conditions. Full results are provided in Appendix D, paragraphs 14 to 18. The results show that flows from Hornsea are most closely correlated with Rough and that there are statistically significant relationships between Rough and IUK, and between Rough and BBL. However, we are unable to control for factors that vary

[103]2003 CC report, paragraph 5.30.
[104]2003 CC report, paragraphs 5.35 & 5.63.
[105]2003 report, paragraph 5.64.

over time and consider that more direct evidence of competition to Rough is provided by the analysis of the price responsiveness of gas sources.

Disruption analysis

6.47 In 2003, the CC looked at responses to unexpected disruptions to supply. In the present review, we were aware of four events that have caused disruptions to flows since 2003. These are discussed in Appendix D, in particular our analysis of the Rough Fire in 2006 (paragraphs 32 to 34). The evidence on observed responses to these events is mixed. Storage facilities, including Rough, MRS and SRS, appear to have responded consistently and import flows on the IUK have also responded quickly to some events. Other flows did not seem to be responsive. However, we recognize that the response of other sources may be delayed, and do not consider the analysis to be very informative.

Price responsiveness of different sources of gas

6.48 The second part of our assessment (paragraph 6.17*(b)*) of Rough's position in the wholesale supply of flexible gas was to consider the price responsiveness of different sources. Using price and flow data, we looked at how responsive flows were to medium- and short-term prices. A number of import sources have been built since 2003, such as the BBL pipeline and further Norwegian gas import facilities, so we performed our analysis on the four winters from 2006/07 to 2009/10.[106]

Responsiveness of flows to medium-term price signals

6.49 To test the responsiveness of flows from gas sources to expectations of prices from the previous month, we examined the relationship between average flows in a month and the average month-ahead prices in the previous month. Our results are set out in Appendix D, paragraphs 30 and 31. Generally, the coefficients are insignificant and we do not attach weight to these results.

Responsiveness of daily flows to daily prices in winter

6.50 In 2003, the CC examined the correlation between the changes in flow from different sources and changes in system average price (SAP). The CC said that the results suggested that the flexible use of Rough was more similar to that of Hornsea and the Morecambe fields than to that of other UKCS fields or the interconnector, and that Hornsea and Morecambe Bay were closer substitutes for Rough. In the present review, we have analysed how responsive these flows are to NBP prices[107] compared with Rough. We have looked at the relationship between daily flows and prices, as was done in 2003. In particular, we calculated correlation coefficients and carried out simple regression analysis.

Comparison of prices and flows

6.51 We calculated correlation coefficients for each of the flows against NBP day-ahead prices. We calculated statistics for each winter separately and across all years, excluding periods of disruption to particular supplies. We also calculated correlations with a one-day lag to the NBP price and correlations of changes in flows to changes

[106]We recognize that over this period LNG imports were only significant for the last two years and are continuing to increase.
[107]We have used NBP day-ahead prices rather than SAP prices as substantial more gas volumes are traded at NBP prices. SAP and NBP prices are closely related but SAP prices tend to be more volatile.

in price (instead of the price level). We found statistically significant relationships for flows against NBP price for Rough and Hornsea for all except one year, IUK for all years and less clear relationships for other sources. Key results are set out in Appendix D, paragraphs 26 to 29.

6.52 We plotted, for each winter, flows from each gas source on the 25 per cent of days with the highest NBP day-ahead prices (see Appendix D, Figures 24 to 27). We observe Rough operating at capacity on many of these days. These graphs do not suggest that imports are responsive to increasing prices even on high price days.

Simple regression results

6.53 We carried out a number of simple regressions to explore further the relationship between flows and prices in the winter months. Full results are in Appendix D, paragraphs 40 to 44. Compared with the price-flow correlations, our regressions allowed us to control to some extent for structural changes over the relevant period and within winters. Table 7 gives some results for the Ordinary Least Squares (OLS) regression of flows on the NBP price for the winter period over years 2006/07 to 2009/10. The coefficient on NBP day-ahead price is positive and statistically significant for each source except LNG and Norway. The size of the coefficients, for example Rough at 9.761, suggests that a 1p per therm increase in NBP day-ahead prices has been associated with a 9.761 GWh/day increase in flows.

TABLE 7 **Results for OLS regression of flows on NBP prices during the winter months for the period 2006/07 to 2009/10**

Independent variables	*SRS*	*Rough*	*Hornsea*	*MRS (excl Hornsea)*
Storage				
NBP day-ahead	0.388***	9.761***	1.188***	1.623***
	(3.636)	(12.85)	(5.200)	(3.892)
Observations	605	605	605	605
R^2	0.108	0.451	0.108	0.062
	Morecambe	*Sean*	*UKCS*	*UKCS (excl Morecambe & Sean)*
UKCS				
NBP day-ahead	3.103***	2.587***	7.313***	1.622***
	(13.65)	(12.01)	(12.43)	(3.215)
Observations	605	605	605	605
R^2	0.471	0.562	0.778	0.790
	LNG	*Norway*	*IUK*	*BBL*
Imports				
NBP day-ahead	–0.0290	–0.156	3.564***	1.109***
	(–0.0658)	(–0.201)	(5.546)	(6.150)
Observations	605	605	605	605
R^2	0.841	0.363	0.301	0.685

Source: CC analysis.

Notes:
1. t-statistics in parentheses.
2. *** p<0.01, **<0.05, * p<0.1.

6.54 These results suggest that Rough is the most price-responsive source of gas in the winter months, followed by UKCS. However, if flows from Sean and Morecambe are excluded, UKCS is substantially less price responsive. IUK comes next (although the coefficients suggest that Rough has been over twice as responsive to NBP price), followed by BBL, Hornsea, other MRS, Norway and SRS. We also ran regressions for the period including only the winters 2007/08 to 2009/10. The coefficients on the

NBP price are significant and positive, except those for Norway and LNG. Rough again appears to the most price responsive followed by the UKCS and then the IUK. The results are reported in Appendix G, Tables 1 to 3.

6.55 Centrica said that our conclusions on the uniqueness of Rough in providing short-term price responsiveness were based on unreliable results. In particular, it ran regressions for separate years which showed that the price coefficients were unstable, particularly for Rough. We respond to this and other points Centrica raised in Appendix G. While we agree that the analysis had its limitations, we consider that both sets of analysis (ie the CC and the Centrica analysis) are consistent in that both show that Rough appears to be more price responsive than other sources, but also suggest that the IUK is more price responsive than in 2003.

6.56 We also explored the effect on import flows of wider European market conditions by analysing regressions of import flows of the interconnectors to the NBP day-ahead price and the difference between the NBP and Zeebrugge/TTF day-ahead prices. Centrica said that the CC's own results suggested that holding European prices constant, the responsiveness of both the IUK and BBL to a change in Great Britain prices is greater than that of Rough. However, we believe that the regressions are not meaningful because volumes traded at these locations are substantially less than at the NBP and Zeebrugge and TTF prices are highly correlated with NBP prices. In addition, we understand that most gas in Europe is supplied through contracts (paragraph 6.27). We also note that we are ultimately interested in whether a source of gas can be expected to respond to an increase in the demand in Great Britain for gas when required—ie the extent that higher NBP prices have been associated with higher flows from gas sources. The analysis tells us that high prices in Great Britain are not necessarily associated with higher imports. Even if we accepted these results at face value, they do not address the right question. They say, for example, that if it is cold in the UK but not cold in Continental Europe, then more gas will flow from Europe than if it is also cold in Europe. We address Centrica's points further in Appendix G.

6.57 In summary, we did not find evidence of a relationship between monthly flows and month-ahead prices, but did not attach much weight to this result. With regard to the analysis of the relationship between daily flows and prices, we attach most weight to the regression results which show a positive and statistically significant relationship between flows and NBP prices for all sources of gas with the exception of LNG and Norway. Rough appears to be the most price-responsive source and we have no evidence that imports in total are as responsive to NBP prices as Rough.

Comparison of Great Britain prices with European prices

6.58 Centrica said that convergence of Great Britain and European spot prices was evidence of strong competition from imports. It said that in the last three years prices had moved closely together.

6.59 We do not accept this view as traded volumes of gas on these markets compared with the NBP are small (see Table 8). BP said that these markets were mainly used by suppliers for marginal balancing activities where their requirements fell outside the contract tolerances. RWE npower, NG and ICIS Heren told us that gas suppliers in Continental Europe sourced gas mainly through long-term contracts on prices generally linked to oil prices, generally above NBP prices. We note that the gas price in Continental markets is likely to be heavily influenced by the NBP price. ICIS Heren told us that European traders benchmarked to the NBP. For these reasons, we do not accept Centrica's interpretation of the observed convergence of day-ahead NBP prices and Continental day-ahead prices. In particular, we do not accept that liquidity of the European markets provides Great Britain with greater access to European gas supplies. In our view, Centrica has not established that significant additional gas volumes can be reliably sourced on European markets at close to NBP prices.

TABLE 8 **Volumes and churn at key European gas hubs, 2003 to 2008**

Hub	NBP	ZGH	TTF	PSV	PEG	Gas Pool	CEGH	NCG
Started	1996	2000	2003	2003	2004	2004	2005	2005
Location	UK	BE	NL	IT	FR	DE	AU	DE
Traded volume (bcm/a)								
2003	611.0	38.6	2.3	0.1				
2004	551.9	41.1	6.2	1.1	0.3	0.0		
2005	500.1	41.7	11.6	2.6	4.0	0.4	0.8	
2006	615.2	45.1	19.1	7.1	7.0	1.2	8.9	0.2
2007	902.6	40.2	27.3	11.5	11.1	4.8	17.7	6.6
2008	960.8	45.4	60.2	15.6	16.5	9.7	14.9	25.3
Physical volume (bcm/a)								
2003	52.5	10.2	1.3	N/A				
2004	53.2	10.6	2.3	N/A	N/A	N/A		
2005	53.7	8.4	3.8	N/A	N/A	N/A	N/A	
2006	60.6	8.6	5.9	N/A	N/A	N/A	N/A	0.1
2007	66.8	7.9	7.4	N/A	N/A	N/A	6.9	4.1
2008	66.6	9.1	18.7	7.7	N/A	N/A	5.2	14.4

Source: Centrica.

Note: N/A = not available.

Ofgem analysis

6.60 Ofgem assesses the available winter flexible capacity in a different way. Rather than looking at the difference between winter capacity or peak flows and average flows over the whole year, Ofgem only includes the capacity of sources that it considers flexible (responsive to price signals). On this basis, Ofgem excludes supplies from Norway and BBL and considers a range of different levels of LNG imports. Ofgem limits net import capacity of the IUK to around 40 per cent of its technical capacity.[108] Centrica estimated that this would reduce average daily capacity of IUK to 325 GWh/day, which it said was lower than levels of delivery previously seen (including the current winter). Applying Ofgem's approach, Centrica estimated that Rough would have 26.9 per cent of winter flexible capacity including no LNG capacity, 18.2 per cent with 50 per cent and 13.7 per cent with 100 per cent.

Evidence of the effect of changes on the relative price of winter gas

6.61 The final part of our assessment of Rough's position in the wholesale supply of flexible gas was to consider SBU prices. Centrica said that the growth in imports has been associated with a decline in the Q1–summer spread[109] since 2006/07 and that this demonstrates that these imports are an alternative flexibility source. It also said that the low margin achieved by Rough over the Q1–summer spread was evidence that most of the value ascribed to Rough was driven by its ability to arbitrage across seasons, rather than short-term optionality.

[108]Ofgem's decision to use a proportion of IUK takes into consideration evidence that over longer periods such as the winter season the average utilization of the infrastructure is well below its technical capacity. For example, NG's *Winter Outlook Report 2010/11* shows that for the highest demand days (ie demand days over 400 mcm/d (4,332 Gwh/d)) between 2007/08 and 2009/10, IUK imports averaged 12 mcm/d (130 Gwh/d), equivalent to 16 per cent of maximum capacity.
[109]Defined to the difference between the Q1 forward price and the average of the forward Q2 and Q3 prices at the time Rough capacity was being bought.

SBU pricing

6.62 Customers of Rough inject gas into Rough when prices are low (mainly in summer) and withdraw it in winter months when demand and prices are higher. The value of Rough storage is related to the difference in gas price in summer compared with winter. There are intrinsic and extrinsic components to the value of Rough storage, as reflected in the pricing of SBUs.

6.63 The 2003 report observed that the price of Rough was closely related to, but generally higher than, the Q1–summer spread. In the five years prior to the acquisition, SBU prices were typically 10p–20p per SBU, although the trend was for increasing prices in 2003. After the acquisition of Rough, SBU prices rose substantially, peaking at over 100p per SBU in 2006/07. More recently, prices have reduced. In the last few months prices fell to around 21–22p per SBU (still above pre-merger levels but reduced from the 2006/07 peak) but then increased to around 23–24p per SBU.

Q1–summer spread

6.64 Centrica said that the spread had fallen significantly since 2006/07 and this had coincided with the significant increase in the availability of new sources of gas supply to Great Britain.[110] Centrica said that supply capacity was not the only relevant factor to determine the Q1–summer spread but it could be seen that since 2006/07, as import sources had increased and gas markets across Europe had become generally less tight, the spread had declined and returned to levels at the time of the merger. Centrica said that new sources had caused the fall. Centrica said that it could increase average winter prices on peak winter days by withholding Rough capacity, but such a strategy would be extremely expensive as it would mean giving up the highest possible margin on Rough. Further detail is provided in Appendix G.

6.65 Our view is that no conclusions can be drawn on whether Rough continues to have market power based on recent movements in the Q1–summer spread. While the availability of gas from other sources will influence price, and therefore the market value of storage facilities such as Rough, the availability of gas from other sources will only inform the background against which we assess Rough's position. Rough will have market power if it is able to influence the market price of gas. Centrica said that it could do this by withholding Rough capacity on peak winter days (paragraph 6.64) and our view is that Rough continues to have market power.

Option value of Rough

6.66 Centrica said that Rough was primarily used to provide seasonal flexibility and it rejected any assertion that Rough might have market power in short-term flexibility. Centrica said that the expected premium of Rough over the Q1–summer spread had peaked at [✂] per cent in 2006/07, falling to around [✂] per cent in 2009/10 and 2010/11. Centrica said that the additional value placed on the short-term price responsiveness of Rough had declined in recent years.

6.67 We consider that Rough has a role in providing both seasonal and short-term price flexibility. However, it is the ability of the various sources of gas to provide daily flexibility across the winter that we explore when looking at the behaviour of flows, and this distinguishes Rough from other sources. In our view, based on the quantitative

[110] ICIS Heren told us that it thought the spread had declined because of LNG imports and also possibly because of the increasing activity of Continental European players in the traded markets. RWE npower also thought that the increased winter capacity from LNG and the interconnectors was one of the reasons why the spread between summer and winter prices had narrowed.

and qualitative evidence available to us, Rough has an important role in providing daily flexibility.

6.68 We note Centrica's statement that the expected premium of Rough over the Q1–summer spread had peaked at [✂] per cent in 2006/07, falling to around [✂] per cent in 2009/10 and 2010/11, which showed that the additional value placed on the short-term responsiveness of Rough had declined in recent years. In our view, this is just one factor shedding light on the position of Rough. The option value of Rough will depend on the market's expectation of winter price volatility, which will change from year to year, depending on market conditions. There is no evidence that what has happened over the last two years is indicative of a trend. More importantly, observations of prices at different times do not of themselves provide any evidence of how those prices might respond to a change in the availability of Rough, which is the only direct measure of market power. We note that the use of Rough suggests that customers appear to place significant value on the daily flexibility provided by Rough. Centrica commented that the limit on Rough capacity that it was able to reserve for its own use constrained its ability to manage price and weather risk (paragraph 7.8), and in paragraph 9.27 we report CSL's views on the secondary trading market where CSL said that a reason customers might be reluctant to sell on their capacity was that they would lose the option to capture additional value as a result of volatility within the storage year.

Conclusions on how the position of Rough has changed since 2003

6.69 Our starting point in considering the position of Rough was the CC's 2003 finding that Rough had market power. Centrica said that investment in import capacity since 2003 had connected Great Britain to new sources of flexibility that competed with Rough, particularly LNG, Norway and the IUK. We investigated Centrica's views by assessing gas sources, supply constraints and the responsiveness of flows to assess how they reacted to changes in Great Britain gas demand. We have also assessed the pricing of Rough capacity.

6.70 Our assessment of sources of gas and supply constraints led us to conclude that, compared with 2003, there has been a significant increase in the physical capacity for delivering gas to Great Britain. This has more than offset the considerable and continuing decline in UKCS production over the same period. Estimates of capacity provided by Centrica show that total capacity has exceeded total demand, including on high-price/high-demand days, suggesting that physical capacity would not be a constraint on importing more gas into Great Britain as an alternative to using Rough.

6.71 However, in addition to the physical capacity of a source of gas, we need to take into account the economic, legal and operational considerations which determine the price needed to secure additional supplies. We have found that other factors, such as contractual pre-emption of supplies and demand conditions in other markets, are significant factors in determining flows into Great Britain. Therefore we have found that the increase in capacity of import facilities on its own is not enough to conclude that Rough no longer has significant market power.

6.72 We considered further evidence of how closely new sources of gas compete with Rough in providing flexibility and, in particular, evidence on whether the supply of gas to Great Britain is now more price responsive than it was in 2003 as a consequence of investment in capacity to import gas into Great Britain. This allowed us to assess how flexible each gas source was and how closely each competed with Rough.

6.73 We found a positive and statistically significant relationship between flows and day-ahead NBP prices for all sources of gas with the exception of LNG and Norway.

Rough appeared, however, to be by some way the most price-responsive source. We also found that flows from the Continent will be influenced by wider European market conditions in particular that Continental demand for gas, which is largely met by long-term contracts at prices which are on average significantly higher than Great Britain prices, acts as a constraint on the availability of winter gas for export to Great Britain.[111] European market conditions are therefore an important factor in determining the price necessary to attract flows to Great Britain. Our analysis suggests that flows from Norway and BBL have not been responsive to Great Britain prices even on the highest price days.

6.74 We have reached the following conclusions about the sources of flexible gas:

(a) We have found that there has been little change in Great Britain storage. Rough continues to be the only significant source of seasonal storage. Since 2003 there has been investment in new storage capacity, but in 2009/10 Rough still accounted for 76 per cent of winter storage capacity. Overall, Rough continues to account for about 20 per cent of flexible supplies. Our analysis has shown that Rough is highly responsive to daily movements in NBP prices, which suggests that in the absence of Rough, supply would be less price responsive and price variability would be significantly greater.

(b) Since 2003, the volume of gas supplied by the UKCS has declined and this trend will continue. Overall, in 2009/10 the UKCS provided 12.9 per cent of incremental winter supplies compared with 65 per cent in 2002/03. Generally UKCS fields produce at maximum capability all year round, with lower summer output because of maintentance. Our analysis suggests that Sean and Morecambe are the UKCS fields most responsive to daily movements in prices but their combined response is substantially less than that of Rough.

(c) Since 2003 there has been technical enhancement to the IUK. Our assessment suggests that the IUK is now responsive to movements in NBP price but that it is still less price responsive than Rough. Third parties told us that there were factors that restricted the flow of gas from the IUK, including contractual arrangements and security of supply restrictions.

(d) Norwegian gas is an important winter source of supply for Great Britain. In 2009/10, the Norwegian links provided 24 per cent of additional winter supplies. Our analysis shows that there has remained spare capacity even on high-price days. Flows appear to be less variable than the IUK flows and to be constrained below capacity. Our analysis of flows and prices suggests that Norwegian flows are less responsive to NBP price than IUK and much less so than Rough. Third parties said that European market conditions and contracts also determined supplies from Norway. Data on gas flows on highest price days in Great Britain suggests that supplies from Norway have not been price responsive.

(e) The BBL came into operation in October 2006. However, over the winter gas flows through the BBL have shown very little responsiveness to price and flows have not exceeded about 90 per cent of the physical net import capacity. Third parties told us that the BBL had not been price responsive. This suggests that at present BBL is a very limited source of flexibility.

(f) LNG represents a significant change to the Great Britain gas market since 2003. LNG supplies have increased significantly as new import facilities have been

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[111]While European trading markets have increased in size since 2003/03, each remains far smaller than the Great Britain gas trading market.

built. LNG imports are dependent on global gas markets and we have noted that there are potential constraints to seasonal variations in LNG imports, and strong constraints to LNG's ability to respond to short-term demand variations. We did not find a statistically significant and positive relationship between flows and day-ahead prices. We are unable to conclude that LNG is a significant constraint on Rough.

6.75 We also examined SBU pricing. We consider that the recent decline in the Q1–summer spread is not evidence that the market position of Rough has deteriorated significantly compared with 2003. Centrica pointed to the size of the expected price premium of Rough capacity over the Q1–summer spread as an indication that most of Rough's value was driven by its seasonal rather than short-term flexibility. We consider that Rough continues to have an important role in providing day-to-day price flexibility and observations of prices at different times do not of themselves provide any evidence of how those prices might respond to a change in the availability of Rough, which is the only direct measure of market power.

6.76 Since 2003 there have been significant changes in the pattern of gas supplies to Great Britain. The level of imports has increased substantially, filling the gap left by the significant decline in UKCS gas supply. However, our assessment of the position of Rough does not lead us to conclude that its market power has diminished sufficiently to mean that the Undertakings are no longer required. Although there have been changes in the market, Rough still has significant market power.

Centrica's domestic retail market position

6.77 In this section, we compare Centrica's domestic retail market share in 2003 with its present market share. It is important for us to verify whether Centrica's position has changed significantly because the focus of the concerns expressed in the 2003 report was related to Centrica's strong position in the domestic gas supply market coupled with the unique position of Rough (paragraph 3.6). In 2003, the CC said that Centrica had a 63 per cent share of domestic gas retail supply. Its share had fallen sharply immediately after the opening of the markets but the decline had slowed. Centrica's only significant competitors in the gas market were electricity companies with shares ranging from 5 to 12 per cent. Centrica had a share of 22 per cent of domestic electricity customers, making it joint leading supplier with Powergen.

6.78 In its response to the January provisional decision, Centrica said that the decision did not take sufficient account of the near 20 percentage point fall since 2003 in its share of residential gas supply. Table 9 shows how shares of domestic retail supply for gas and electricity has changed since 2003. Centrica's share of domestic gas supply has fallen from 62.5 per cent. However, it remains high at 43.8 per cent,[112] over 2.5 times the size of the next largest competitor. The electricity supply companies continue to be Centrica's only significant competitors in the domestic gas market. Centrica is the largest supplier of electricity to domestic customers with a higher share in 2010 than it had in 2003.[113] Centrica's combined share of domestic gas and electricity supply has fallen from 40.2 to 32.9 per cent, with the next largest supplier at 18.1 per cent.

6.79 On the basis of these market share figures, we still conclude that Centrica continues to have a strong position in the relevant retail markets.

[112] Centrica's own figures show the residential market share as 42.4 per cent. However, we do not consider the difference to be material to our analysis.
[113] We note that Centrica announced that it had gained 267,000 residential customer accounts in its 2010 preliminary results statement on 24 February 2011.

TABLE 9 **UK market shares for domestic gas and electricity sales**

per cent

	Gas domestic supply		*Electricity domestic supply*		*Dual accounts*		*All customers*	
	April 2003	*July 2010*	*April 2003*	*July 2010*	*April 2003*	*July 2010*	*April 2003*	*July 2010*
Centrica	62.5	43.8	22.7	24.2	49.1	30.8	40.2	32.9
EDF Energy	5.3	8.0	16.3	12.7	8.2	9.7	11.4	10.6
E.ON UK	11.2	12.8	21.5	16.9	15.2	15.7	16.9	15.0
RWE npower	9.1	11.5	16.1	14.9	10.5	12.9	13.0	13.4
SSE	6.5	16.6	13.0	19.4	11.3	22.4	10.2	18.1
ScottishPower	4.2	7.3	9.2	11.7	5.0	8.4	7.0	9.7
Others	1.2	0.1	1.3	0.3	0.7	0.1	1.3	0.2

Source: Datamonitor information provided by Ofgem .

Overall conclusion of market assessment

6.80 In this section, we have assessed the effect of market changes on the position of Rough as a source of flexibility and the position of Centrica in the retail gas supply market. We noted the decline in the overall position of Centrica but did not consider it to be material to our market assessment given the nature of the adverse findings made in 2003. We concluded that Centrica, although its market share has reduced since the 2003 report, still had a strong position in the domestic retail gas market. We also concluded that Rough is still an important source of gas flexibility. Rough continues to be more responsive to price and demand changes than other gas sources and continues to have significant market power. On the basis of our market assessment, we did not consider that Rough's position or Centrica's downstream retail position had changed sufficiently to conclude that the adverse findings made by the CC in 2003 no longer applied. Therefore we did not consider that it was appropriate to vary or release the Undertakings because of market changes.

7. Assessment of whether the specific aspects of the harm identified in the 2003 report still apply

7.1 In Section 6 we concluded that, notwithstanding important changes in the supply of gas since 2003, the Undertakings should not be varied or released because of market changes. In this section, we consider representations made by Centrica that developments since 2003 have caused the harms originally identified by the CC to no longer apply. In this section, we briefly review those concerns and then consider whether they are alleviated by any change in circumstances.

The 2003 conclusions[114]

7.2 In 2003, the CC did not rest its concerns about Centrica's acquisition of Rough on a finding of market power in the wider market for the flexible supply of gas based on a combination of Rough and Centrica's other sources of flexibility. The CC went on to express concerns about possible downstream discrimination and concluded that ownership of Rough would enable Centrica to discriminate in favour of its own trading and supply operations, because of Centrica's very powerful position downstream and Rough's unique importance in the supply of flexible gas, by:

[114] The 2003 conclusions are discussed at greater length in paragraphs 3.3–3.10.

(a) discriminating between customers in providing access to capacity at Rough;

(b) taking advantage of sensitive information derived from the operation of Rough;

(c) withholding information about the operation of Rough;

(d) being less innovative in marketing Rough products than another owner; and

(e) investing less in expansion of capacity at Rough than another owner.

7.3 The CC was concerned that, absent the Undertakings, other industry participants and in particular downstream competitors of Centrica and potential entrants would experience a significant increase in uncertainty, both as to their future access to Rough and as to the effect the merger might have on Centrica's conduct in the wholesale market.

The current position

Discrimination between customers

7.4 Centrica has submitted that any ability or incentive it may once have had to discriminate against downstream rivals was substantially reduced. This, it said, was primarily as a consequence of a marked decline in its share of the market for the supply of gas flexibility that had affected both its ability and its incentive to discriminate, and also the decline in its residential gas supply share. Centrica argued that:

(a) It would not be sufficient for Centrica to reserve more Rough capacity for its own use to raise rivals' costs unless the output of Rough was also restricted.

(b) It could not in a single traded market raise the downstream costs of rivals without raising its own procurement costs.

(c) Any ability or incentive Centrica may have once had to discriminate against rivals has been substantially reduced due to the decline in the upstream and downstream market positions of Centrica. Overall the sources from which Centrica obtained flexible supplies of gas had declined in importance. There had been substantial development of infrastructure held by third parties from which flexible supplies of gas could be obtained, replacing declining UKCS supplies (of which Centrica had a relatively large share). In its view, the change in Centrica's upstream position was highly relevant to the assessment. It said that while it was the combination of Rough with Centrica's downstream position that would give Centrica the ability and incentive to engage in partial input foreclosure (see further paragraph 7.6) it believed that ability and incentive would be constrained by the presence of alternative sources of gas flexibility, to the extent that those alternatives were controlled by independent third parties other than Centrica. It said that it believed the MAG made it clear that it was the merging firm's overall upstream market position and not the position of a single asset within the relevant market that should be considered in an assessment of partial input foreclosure. In relation to a downstream competitor's ability to switch away from Rough (it referred to MAG, paragraph 5.6.10(b)), it said that in 2003, Centrica controlled many of the alternative sources of flexibility to Rough so downstream rivals attempting to switch away from Rough in response to a price discrimination strategy would have been far more limited in their ability to do so than today. In relation to the contribution of lost upstream profits to the incentive to pursue this strategy (MAG, paragraph 5.6.11(a)), it said that similarly the loss in profit upstream would be greater the more alternatives to Rough were available to rivals.

On the contribution of gained downstream profits to incentives (MAG, paragraph 5.6.11(b)), it argued that the incentive was further weakened by the decline in Centrica's downstream share which reduced the expected benefits of the strategy downstream.

(d) Any vertical effects that can be found would also be weakened by their indirect nature, given that Centrica's rivals in the residential gas market [✂]. Therefore Centrica could not target any withholding of capacity so as to discriminate against its downstream rivals.

(e) Centrica's (British Gas's) residential gross margins were relatively low while CSL operated at relatively high gross margins, reflecting the capital-intensive nature of the business. Thus forgoing sales of Rough capacity was a costly strategy, particularly in the face of some real uncertainty as to the number of customers that would be gained—especially given that the cost of flexibility was only part of the cost of serving residential customers.

7.5 Point *(a)* concerns Centrica's incentive to withhold capacity from its rivals. We consider that Centrica remains in a position to favour its own trading and supply operations through its use of Rough and thus disadvantage competitors. This aspect of discrimination does not rely on Centrica restricting the use of Rough. The 2003 report also did not suggest that a discrimination strategy would involve a restriction in the use of Rough. In 2003, we said that in the absence of Undertakings, an owner to Rough would have the ability to discriminate effectively, including by favouring its own trading and supply operations.

7.6 In the discussion below, we frame our conclusions in the terms of the MAG. While these were not in place in 2003 and did not therefore inform the decision-making at the time, we consider these references to be useful in illustrating the nature of the conduct at issue. In Section 6 of this report, we found that Rough still possessed significant market power. This indicates (see paragraph 5.6.10*(b)* of the MAG) that Centrica has the ability to foreclose. It also has the incentive (paragraph 5.6.11 of the MAG), because the opportunity cost of foreclosure at the margin is the marginal third party revenue forgone which, because of Rough's market power, is below market price. Centrica therefore has the incentive to obtain more Rough capacity for itself than it would acquire in a competitive market. Such foreclosure would continue to have a significant effect on competition in the downstream market (paragraph 5.6.12 of the MAG).

7.7 This is one manifestation of the discrimination concern arising from Centrica's ownership of Rough in combination with its downstream interests. Centrica's ability to favour its downstream trading and supply operations to the disadvantage of downstream competitors could manifest itself in a variety of ways including favouring Centrica Group purchasers or disadvantaging other customers on terms or the nature of the product offered.

7.8 Centrica disagreed that the opportunity cost of a partial input foreclosure strategy would be the marginal third party revenue forgone. It said that it could not change customer expectations of the Q1–summer spread simply by internalizing Rough capacity since this would not result in any expectation of a change in the supply of flexible gas in the market. This is discussed in paragraphs 6.9 to 6.12. We consider that this reflects a disagreement between Centrica and ourselves on the importance of Rough in providing daily flexibility. We do not, unlike Centrica, consider that all other sources of flexible gas as defined by the CC in 2003 are close substitutes for Rough. The MAG says that whether there is the ability to price discriminate depends on whether downstream rivals can turn to good substitutes. In Section 6, we concluded that Rough continues to have an important role in providing daily flexibility; in particular, our analysis suggests that Rough continues to be more price responsive than other flexible gas sources. It is our view that if Centrica were to take more Rough capacity for its own use, the effect would be to restrict the supply and raise the cost of short-term flexibility for other parties. We consider that this is consistent with statements made to us by Centrica, where it told us that the 15 per cent limit on Rough capacity it was able to reserve for its own use unduly constrained its ability to manage price and weather risk around its retail portfolio.

7.9 In point *(b)*, Centrica said that it could not in a single traded market raise the downstream costs of rivals without raising its own procurement costs. However, the basic theory of harm explained in paragraph 7.6 shows that it would be able to do this.

7.10 We considered whether changes to wholesale trading since 2003 meant that Centrica could not discriminate effectively because customers could make equivalent purchases on the forward markets. In 2003, the CC rejected the argument that an owner of Rough would not be able to discriminate effectively because customers could make equivalent purchases on the forward markets. Centrica told us that the liquidity of the NBP and the number of parties who are engaged there has improved. It said that the traded market at the NBP was a significant measure of the commercial activities of both Centrica and its competitors, and more so than in 2003. Further, it said that as its sources of flexibility declined, it increasingly used the traded market to access flexibility.[115]

7.11 There is good evidence of a liquid trading market. Most parties agree that the Great Britain trading market is liquid. Ofgem published a report in June 2009 which also concluded, inter alia, that the gas market was highly liquid.[116] However, we are not persuaded that the trading market is the answer to the threat of discrimination because buying gas does not offer the flexibility provided by access to Rough. A further consideration is the importance of the physical availability of Rough capacity to the maintenance of confidence in the trading market. Ofgem told us that there could be significant potential risks to the trading market associated with Centrica acquiring more Rough capacity (paragraph 9.29).

7.12 Point *(c)* that Centrica raised concerns its upstream and downstream positions. We noted in Section 6 that while in 2003 a market for flexible gas was defined to include all sources of flexibility on the basis that they all made some contribution to the summer–winter spread which was said to influence the price for Rough, the CC said that some sources of gas included in it would be a weak competitive constraint on Rough. We concluded in Section 6 that Rough continues to enjoy a position of significant market power. The points Centrica raised on the impact of overall changes in Centrica's upstream position on its ability and incentive to engage in partial input foreclosure turn on a use of this wide market definition for the upstream analysis and all sources within that wider market being good substitutes for Rough. That was not the finding in 2003 nor the conclusion in this review (Section 6). In 2003, in assessing Centrica's ability and incentive to engage in discrimination, the CC noted that while Rough had a share of the flexibility market of 10 to 12 per cent of capacity and 20 per cent of use, some sources of flexibility were closer substitutes for Rough than others (paragraph 6.38). While we note the decline in Centrica's overall share of flexibility,

[115]We also note that if trading did provide an equally effective alternative to Rough, Centrica should be unconcerned about the Undertakings remaining (see also paragraph 9.45).
[116]See:
www.ofgem.gov.uk/MARKETS/WHLMKTS/COMPANDEFF/Documents1/Liquidity%20in%20the%20GB%20wholesale%20energy%20markets.pdf.

this is not a relevant change in circumstance which removes the need for the Undertakings (paragraph 6.12).

7.13 In relation to downstream changes, whilst Centrica's share of the residential supply of gas has fallen since 2003, it is still very high and over 2.5 times that of the next largest competitor (paragraph 6.78). Therefore, we do not consider that this decline represents a material change in Centrica's incentives. We recognize that there have been important changes in the supply of gas since 2003. However, the conclusions of the 2003 report were focused on Centrica's very powerful position in the domestic gas supply market and Rough's unique importance as a source of flexibility. We conclude that these concerns still apply.

7.14 Point *(d)* that Centrica made concerns the customer base of Rough. We note that there has been some change since 2003 in that Centrica's share of Minimum Rough Capacity has fallen in accordance with the Undertakings. As Centrica's share has fallen, sales to [✄] have increased. That Centrica's share of Rough capacity should fall was the intention of the CC in 2003. Leaving aside capacity no longer purchased by Centrica itself, Rough's customer mix is not significantly different from 2003. This is illustrated in Figure 3. Since 2003, [✄].

7.15 We also note that retailers purchasing gas on the traded market indirectly make use of the flexibility provided by all sources of gas including Rough. Centrica told us that the residential gas market benefited from the use of Rough by those who booked it and who then used this capacity to make winter gas available at lower prices than would otherwise be the case. With a developed trading market, retailers do not need to hold capacity in Rough themselves, although Centrica using more Rough capacity for itself can still advantage itself relative to competitors.

FIGURE 3

Breakdown of Minimum Rough Capacity* SBU customers by year

[✄]

Source: CC analysis of CSL data.
*This is defined in the Undertakings as 455 million SBUs.
Note: [✄].

7.16 On point *(e)*, about margins, we do not think this is relevant to the main point, which is that Rough's market power gives Centrica access to Rough capacity at a lower opportunity cost than that of its competitors, and gives Centrica the ability to discriminate in favour of its own trading and supply operations. There is no loss of margin as capacity is not being withheld. Further, we are unaware of any material change of circumstances since 2003.

Use to advantage sensitive information/withhold information

7.17 Turning to other concerns raised by the CC in 2003, we have not heard any substantial argument that there has been a change of circumstance in relation to the use advantage that Centrica derives from sensitive information gained from operating Rough, or in relation to the withholding of information about the operation of Rough.

Less innovative in marketing Rough products

7.18 In 2003, the CC said that Centrica's primary motivation for acquiring Rough was to hedge its downstream business and that Centrica may be expected to be less innovative in marketing Rough than another owner, particularly since the value of innovation would partially accrue to Centrica's competitors. In the present investigation, Centrica said that innovation was a variation of a partial input foreclosure concern, and the same considerations as to the effect of the change in Centrica's overall upstream position and downstream position on its ability and incentive to engage in this conduct applied.

7.19 The particular features of Rough means that its services can be packaged in a variety of ways to offer a range of flexibility products. At the root of the concern around innovation is the value placed by the market on Rough-related products and the significant market position of Rough. The same considerations as in paragraphs 7.12 and 7.13 apply. We also note that the only remedy that specifically dealt with innovation was the requirement to facilitate the secondary market. We therefore recognize that the concern relates to a narrow aspect of the overall Undertakings package.[117] Centrica separately said that aspects of the current Undertakings package restricted CSL's ability to innovate, and we address these concerns in Sections 8 and 10.

Less investment in expansion of Rough capacity

7.20 In 2003, the CC identified as a concern that Centrica may be expected to invest less in expanding Rough's capacity than another owner. In the 2003 report, it was envisaged that to incentivize investment, a limit would be placed on the amount of Minimum Rough Capacity that Centrica could purchase below its level of demand.[118] The CC also recommended that Centrica would be able to reserve all Incremental Capacity (created through investment to expand Rough) to itself. These points were reflected in the Undertakings.

Centrica's views

7.21 Centrica said that the CC's concern in 2003 was that Centrica had an incentive to reduce, rather than increase, the amount of flexible capacity available to its downstream competitors and that not expanding Rough capacity would achieve an effect similar to withholding gas. Centrica said that changes in its share of supply of gas flexibility meant that this concern was obsolete, and that [✂]. Thus not expanding Rough would harm Centrica as less capacity would be available for sale and rival projects would be encouraged.

7.22 CSL said that it had undertaken significant investment at Rough and maximized use of the asset (it said that it had added 566 to 708 million square metres of space (17 to 21 per cent of capacity)). It told us that while it did not follow that all investment and innovation undertaken by CSL could be attributed to the Undertakings, the aims targeted by the Undertakings had been achieved in relation to investment and were no longer needed. CSL told us that work was under way on a project [✂]. However, it said that any new significant expansion of Rough's scale was unlikely. It said that any such expansion of the size of Rough would require new major physical work and the magnitude of investment was similar to a new storage facility (likely to be significantly in excess of £[✂] to increase capacity by [✂] per cent)—but without the benefits to both CSL and the market of spreading risks across independent assets.

[117] In paragraph 9.27 we report Centrica's view that secondary market trades were thin and bid/offer spreads large.
[118] 2003 report, paragraph 2.214.

Centrica said that it planned to focus on potential investment in new projects at Baird, Bains and Caythorpe.[119]

7.23 CSL said that there were many other market participants with potential storage projects, several of which had already obtained the necessary planning and other permissions. It suggested that if there were profitable opportunities for investing in storage capacity, other market players could still do so regardless of CSL's plans.

CC assessment

7.24 Centrica argued that there had been a change in market circumstances and the withholding concern no longer existed. It said that the Undertakings were no longer needed as: *(a)* Centrica's market share of flexibility had declined significantly; *(b)* investment in Rough pursuant to the Undertakings had already taken place; *(c)* investment in Rough would cost a similar amount to investment in other storage projects but would carry greater risks; and *(d)* if CSL did not invest in storage, others would.

7.25 With regard to point *(b)*, while we recognize that investment in Rough has already taken place, we do not see why it follows that Centrica has maximized use of Rough causing future investment to be unlikely. We note that, while there have been other investments in Great Britain storage, the share of storage represented by Rough remains the same as in 2003 (paragraph 3.21). We also consider that smaller-scale incremental investment in Rough can benefit the market even if larger investments are not pursued. In relation to points *(c)* and *(d)*, we recognize that overall in the industry there are a large number of storage projects under development. However, the likelihood of them being approved in a final investment decision is uncertain.

7.26 While we consider that further investment in Rough which created more available capacity for the market would be a positive development, we no longer propose to seek to encourage Centrica to invest in Rough by setting the level of the cap on sales to Centrica at a lower level than we would otherwise set it (the remedy included in the Undertakings in 2003 to address the concern around investment). Going forward (see paragraph 9.40), there would be no restriction on Centrica's ability to purchase additional capacity created at Rough, so we consider that the nature of the arrangements we are proposing means that to the extent that any further investment in Rough was considered by CSL, it would be continued to be encouraged under the Undertakings.[120]

7.27 On point *(a)*, we recognized in paragraph 3.7 that in 2003 the CC regarded the impact of Centrica failing to invest to expand Rough's capacity as similar to the effect of it withholding gas. The CC said that Centrica would be more likely to do this than another owner of Rough because of its control of other flexibility sources and because a reduction in withdrawal rights could create difficulties for its downstream competitors. Therefore, Centrica's overall upstream position is relevant to this aspect of the adverse findings in 2003. We recognize that Centrica's upstream position has worsened (paragraphs 6.8 to 6.12). As we no longer propose to include a remedy in the Undertakings to address this concern, we have not had to consider the full implications of that change for the 2003 finding on investment.

[119] We noted in paragraph 3.21 that final investment decisions on each of these projects have not been made.
[120] We noted in our provisional decision on variations that a number of third parties were in favour of retaining the current mechanism of setting the level of the cap to incentivize investment.

7.28 In conclusion, we have examined each of the aspects of harm identified in the 2003 report. We no longer propose to include a remedy in the Undertakings to address the concern identified in 2003 in relation to Centrica's incentives to invest in Rough. In relation to the adverse findings other than investment, we do not see strong reasons to vary or release the Undertakings for any of the reasons considered in this section. In some cases, there has been no real change in circumstances. In other cases, while there have been changes, we do not consider that the changes are sufficient to remove the potential for abuse identified in the 2003 report.

8. Assessment of the implications of the TIEP

8.1 In this section, we consider the implications of the TIEP for the Undertakings. The Gas Regulation and the Gas Directive (paragraph 3.28) both contain provisions relating to gas storage facilities. The Gas Regulation includes as one of its objectives the setting of fair rules for access conditions to storage.[121] The EU authorities recognize that access to gas storage facilities is insufficient in some member states and that the implementation of existing rules needs to be improved.[122] Monitoring by the European Regulators' Group for Electricity and Gas had concluded that voluntary guidelines for good third party access practice for storage system operators (SSOs) were being insufficiently applied and needed to be made binding.[123] The Gas Regulation is a minimum regulation that aims to introduce consistent minimum standards across member states.[124] The EU authorities also consider that it is necessary to ensure the independence of SSOs in order to improve third party access to storage facilities that are technically and/or economically necessary for providing efficient access to the system for the supply of customers and the Gas Directive sets out a number of requirements to achieve that.[125] The Gas Directive also aims to introduce minimum safeguards and is not a maximum harmonization directive. Therefore, the TIEP leaves scope for member states to maintain more detailed rules in this area if they deem it appropriate. The TIEP and the Undertakings both have at their core ensuring third party access to storage facilities and therefore cover similar areas. However, the general regime introduced by the TIEP is in material aspects less stringent than the regime established by the Undertakings, which were devised specifically to address the CC's concerns arising out of Centrica's ownership of the Rough facility. Central to our decision on the implications of the introduction of the TIEP is how those differences bear on whether the TIEP provides adequate safeguards against our concerns.

8.2 There was already a third party access regime in place in relation to gas storage facilities in the UK, based on previous EU internal energy market legislation. The main regulatory requirements for third party access were set out in section 19B of the Gas Act 1986 (the Gas Act) and section 17D of the Petroleum Act 1998 (certain offshore storage). Relevant extracts are included in Appendix F. Rough is currently subject to the third party access regime.[126] The TIEP has introduced some significant new changes to regulation of gas storage.

[121]Recital 37 Gas Regulation.
[122]Recital 27 Gas Regulation.
[123]Recital 27 Gas Regulation.
[124]Article 26 of the Gas Regulation expressly provides for the right of member states to maintain or introduce measures that contain more detailed provisions.
[125]Recital 24 Gas Directive.
[126]Pursuant to the Petroleum Act.

8.3 Ofgem, in its consultation on its guidance on Third Party Access (TPA) for gas storage facilities published on 3 November 2010 (TPA Guidance),[127] identified the following key changes introduced by the TIEP:

(a) strengthening provisions to prevent discrimination in respect of TPA access to storage facilities;

(b) requiring the unbundling of SSOs from vertically integrated companies;

(c) increasing information provision and transparency requirements; and

(d) enhancing monitoring duties and enforcement powers of the national regulatory authority (NRA).

8.4 Ofgem indicated that, in particular, the Gas Regulation provided increased direction regarding 'basic principles and rules regarding network access, third party access services, congestion management, transparency, balancing and the trading of capacity rights'. Links to the Gas Directive and Gas Regulation are at Appendix E.

8.5 Most of the requirements in the Gas Directive and the Gas Regulation relating to storage facilities apply only to facilities that are technically and/or economically necessary.[128] Ofgem has confirmed that Rough will be subject to all TIEP requirements relating to gas storage.[129]

Overview of UK implementation process

8.6 DECC is responsible for implementing the TIEP in the UK. Ofgem will be the NRA tasked with monitoring and enforcement of TIEP requirements pertaining to gas storage. The requirements in the Gas Regulation directly applied in the UK when it came into effect on 3 March 2011 so no transposing is required. However, DECC has indicated that it will take steps to ensure that Ofgem has the appropriate powers in UK law to enforce the requirements in the Gas Regulation. DECC issued a consultation on the implementation of the TIEP in July 2010.[130] In relation to transposing the requirements of the Gas Directive, it consulted on two broad options:

(a) explicitly setting out the obligations in legislation; or

(b) creating a new, but light touch, licence regime for gas storage operators with licence obligations limited to the requirements of the TIEP.

8.7 DECC published the Government's conclusions to the consultation in January 2011.[131] The response confirmed that DECC planned to amend legislation (the Gas Act 1986) to implement the Gas Directive measures relating to gas storage and to enable Ofgem to enforce compliance with the new obligations on storage operators in the Gas Regulation, as opposed to introducing a new licence regime. It also indicated that it planned to move current third party access provisions in the Petroleum Act 1998 relating to offshore gas storage fields into the Gas Act.

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[127] Guidance on the Third Party Access regulatory regime for gas storage facilities in Great Britain, published on 3 November: www.ofgem.gov.uk/Markets/WhlMkts/CompandEff/Documents1/Third%20Party%20Access%20regime%20for%20gas%20storage%20facilities%20Consultation%20Document.pdf.
[128] Article 19(4) of the Gas Regulation and, for example, Article 16 of the Gas Directive apply to all gas storage facilities.
[129] Ofgem has confirmed that Rough would not meet the requirements for an exemption from third party access.
[130] www.decc.gov.uk/assets/decc/Consultations/eu-third-package/246-eu-third-package-condoc.pdf.
[131] www.decc.gov.uk/assets/decc/Consultations/eu-third-package/1163-eu-third-package-gov-response.pdf.

8.8 The TPA Guidance consultation issued by Ofgem (paragraph 8.3) discussed how Ofgem may be minded to interpret provisions, particularly with respect to the Gas Regulation. Ofgem indicated that SSOs had significant scope to develop access arrangements that would meet the needs of their customers and that the guidance was intended to help SSOs reduce the risk of non-compliance. Ofgem's guidance also includes some good practice safeguards for SSOs with significant market power (SMP).[132] This will also be the case for its final guidance when published.

8.9 Ofgem anticipates publishing its final guidance following the UK implementing regulations coming into force. At this stage it is not anticipated that the final guidance will differ in material respects from the consultation guidance although Ofgem said that the final version may expand and clarify certain aspects. Ofgem has indicated that references to its guidance consultation in the summaries of its views in this report are expected to be consistent with the approach in its final guidance.

8.10 As the Gas Regulation is directly applicable, the legal requirements that SSOs are subject to are already clear. In January, following its earlier consultations, DECC published a summary of the proposed approach to implementation of the Gas Directive. We understand that the UK implementation measures that are being introduced by DECC to transpose the Gas Directive will closely reflect the provisions in the Gas Directive with regard to storage. Therefore, we consider that we are in a position to conclude on our assessment at this stage, recognizing that it may be appropriate to make certain adjustments when implementing the variations identified in this report to reflect the detail of the DECC implementation measures.

The relationship between the TIEP and the Undertakings

8.11 As noted above, the Gas Regulation and the Gas Directive set the minimum requirements in respect of the areas covered. If a member state wishes in its national law to set further requirements in relation to any area covered by the Gas Regulation or Gas Directive, it may do so, provided those provisions do not conflict. Therefore the CC can maintain more detailed Undertakings if it considers it necessary.

8.12 If any aspects of the Undertakings conflicted with the Gas Regulation, the Gas Directive, or the UK implementing measures, we would need to release or amend those aspects.

8.13 In our assessment below, we refer generically to the TIEP. This is not only used to refer to the EU legislation but also, particularly in the sections relating to our assessment, to how the requirements will be applied in the UK, ie as shorthand for the directly applicable requirements in the Gas Regulation, UK measures implementing the Gas Directive and any other amendments to UK legislation designed to ensure effectiveness of the Gas Regulation and the Gas Directive.

Our approach

8.14 We approached our assessment as follows:

(a) First, we considered whether the provisions of the TIEP provided sufficient protection against our competition concerns to enable us to release all or some of the Undertakings.

[132] In its TPA Guidance consultation Ofgem set out its proposed approach to assessing SMP.

(b) After that assessment, if we were minded to retain the Undertakings (or any aspects) we would consider:

(i) whether there were any areas of conflict between the Undertakings and the TIEP—in which case those aspects of the Undertakings must be varied or released;

(ii) whether there were any problems in interaction between the Undertakings and the TIEP which needed to be resolved; and

(iii) whether any adverse effects identified by Centrica of the existing Undertakings warranted any changes to the Undertakings and if so what variations should we make.

8.15 As this review takes place a number of years after the introduction of the Undertakings, we also considered Centrica's submissions on practical difficulties arising from operating under the Undertakings and considered whether to vary the Undertakings as a result.

Our assessment of whether the TIEP introduced sufficient protection

8.16 We gave careful consideration to whether the introduction of the TIEP would introduce sufficient safeguards to remove the need for the Undertakings.

Centrica's views

8.17 Centrica argued that the TIEP dealt with the key concerns that the Undertakings were designed to address. In relation to the CC's original concerns, Centrica considered that discrimination by CSL, misuse of information by CSL and withholding of information about the operation of Rough were dealt with by the TIEP. It said that discrimination concerns were addressed by Articles 15 and 17 of the Gas Regulation and Articles 13 and 33 of the Gas Directive. It considered that misuse of information was dealt with by Articles 16 and 15(2) of the Gas Directive and withholding of information was addressed by Articles 15 and 19 of the Gas Regulation. In relation to the CC's concern around Centrica's lack of incentive to innovate in marketing Rough products, Centrica referred to the fact that the Gas Regulation (Article 15(2)) required services to be offered on a variety of bases. CSL's core submission on this aspect was that the Undertakings operated to restrict its ability to innovate in the products it offered.

8.18 In relation to the concern that Centrica would invest less in expanding Rough's capacity than another owner, it suggested that the nature of the TIEP regime as a whole was intended to facilitate and encourage new investment. Centrica recognized that the initial Undertakings allowed Centrica to retain Incremental Capacity to encourage investment but this would not be permitted under the TIEP. It said that the incentive mechanism imposed by the CC (ie limit Centrica's reservation to 15 per cent of the original capacity plus all Incremental Capacity) had had its desired effect: CSL has developed Incremental Capacity and the relevant Undertaking had therefore served its purpose but was no longer relevant (paragraph 7.22).

8.19 Centrica recognized that the Undertakings were more detailed on some aspects than the TIEP, but considered this did not mean they could not be released given its view that the TIEP addressed the CC's concerns. It considered that there was no lack of rigour or effectiveness in the TIEP requirements. In its view, the TIEP took on many of the key elements of the Undertakings while giving suppliers flexibility to offer new products and respond to market signals in ways that were not such a clear requirement in 2003. It argued that the European legislation was designed to deal not only with a fragmented gas flexibility market such as the UK but also more concentrated market structures in mainland Europe. It considered that European regulation designed to manage these situations could not be insufficient in a market such as Great Britain.

8.20 Centrica also said that the Undertakings, particularly in the context of changes to market structure, but also in light of the new regulatory framework put in place by the TIEP, imposed unnecessary inflexibility on Rough which was no longer needed to ensure competitive operation of the facility. Centrica argued its position in the supply of flexible gas was no longer so unique that it should be required to carry a unique regulatory burden. Centrica said that Ofgem should be in an excellent position to judge over time whether or not Centrica had SMP and if so to ensure that it met the higher regulatory standards applied to such suppliers. It suggested that Ofgem was in a position to keep this analysis under constant review and that Ofgem's TPA Guidance consultation was designed to operate effectively in a dynamic market. While the regulatory regime was fixed by law, its precise implementation would be flexible, with Ofgem able to respond to market changes over time. It considered that this was particularly important given the dynamism of the UK gas supply sector. It also considered that, absent the Undertakings, all players would face a level playing field in which to compete. This was particularly important given the entry of several international players who had significant positions in the supply of flexible gas as well as existing/potential storage projects.

8.21 Centrica provided an article by article comparison of the Undertakings with the TIEP. Centrica said that subjecting CSL to two different regulatory regimes amounted to double jeopardy. It suggested that moving the oversight of Rough from the CC to Ofgem would mean that regulatory oversight would be maintained by a single regulator, bringing efficiencies.

8.22 In its response to the 12 January provisional decision, Centrica said that the CC's approach to considering the change of circumstance represented by the TIEP was flawed. It said that the 12 January provisional decision wrongly focused exclusively on the provisions of the TIEP as an 'alternative remedy'. Centrica said that it would and could be expected to comply with the rules under the TIEP. The TIEP was not only to be considered as an alternative remedy to be compared with the Undertakings (as the provisional decision assumed) but its binding nature meant it also affected how Centrica would be expected to behave in the future and therefore 'the potential for abuse' in the absence of the Undertakings. Centrica said that the new specific, detailed rules in the TIEP changed the counterfactual as to applicable restraints on Centrica's behaviour in the absence of the Undertakings. The TIEP dealt with substantially all of the behaviours addressed by the CC as 'potential abuses' so the 'potential for abuse' was fundamentally different and reduced from 2003. It said that the 12 January provisional decision did not address the fundamental change in Centrica's ability and incentive to misuse its market position and likely behaviour brought about by its need to comply with the TIEP. It said that the CC must take this into account when assessing the potential conduct of Centrica absent the Undertakings.[133] It also said that the CC should consider the 'potential for abuse' in light of Centrica's reduced market power and the requirement that it complied with the TIEP and that in doing so the CC should conclude that the Undertakings could, at least in large measure, be superseded.

[133] It said that this was illustrated by the General Court's judgment in *Case T-210/01 General Electric v Commission*, judgment of 14 December 2005. It quoted paragraph 75 of the judgment.

8.23 Centrica said that the CC should take into account the prohibition in Article 102 TFEU[134] and Chapter II of the Competition Act 1998 as well as the requirements and obligations in the TIEP, but said that the TIEP was to be expected to have a greater impact on the behaviour of Undertakings given that it was a specific regulatory regime with a dedicated regulator to monitor compliance and set reporting requirements, in a sector where there were a small number of purchasers, all well informed and sophisticated. If Centrica breached obligations, it would be detectible by Ofgem and the market.

8.24 Centrica said that the DECC Government Response document made it clear that Ofgem would 'within the legislative framework be provided with the relevant powers to gather information and make enforcement orders and impose penalties as required'. It referred to the fact that DECC would make storage obligations 'relevant requirements' in the Gas Act, bringing the enforcement provisions into line with obligations on licence holders. It said that those powers went beyond those currently envisaged under the Undertakings and should be taken into account in assessing the likelihood of any Centrica behaviour absent the Undertakings.[135] It said that the existence of the TIEP and the Government's intention to enhance Ofgem's powers to ensure compliance with it would have a significant deterrent effect on Centrica and should be taken into account in considering the potential for abuse.

8.25 Centrica explained how it considered that the CC should consider the potential for abuse. It addressed each harm identified by the CC separately: discrimination between users, use to advantage sensitive information, withold information, lack of innovation, lack of investment. On discrimination, it pointed to various provisions in the TIEP (Article 15, 17, 19 Gas Regulation Articles 13 and 33 of Gas Directive) and Ofgem's monitoring and enforcement powers. It said that Centrica must be expected to comply with the TIEP and stated that the potential for abuse was nil. It said that the CC could not point to the minimum harmonization nature of the TIEP or the 'uncertainty' of implementation to justify retention of the Undertakings. On publication of information, it said that the requirements in the Gas Regulation (Articles 15 and 19) dealt with this and that the CC could not expect Centrica to withhold information. As to information not covered by the Gas Regulation, the CC should consider the degree of harm from it not being published and whether that justified maintaining the Undertakings. It said that in its view it did not. On misuse of information, it said that this would be dealt with by Articles 16 and 15(2) of the Gas Directive and no further provision was required (or it could be dealt with in the UK's detailed implementation of the TIEP—for example, in relation to physical separation). On innovation, it said that, given Centrica must comply with Article 15(2), which imposed direct obligations on Centrica about the range of Rough services it had to offer, there was no scope for abuse. In relation to investment, it objected to the CC's conclusion that this harm still persisted and said that given Article 13(1) of the Gas Directive, Centrica could not be expected not to invest to maintain Rough.

Ofgem's views

8.26 Ofgem considered that the combination of the Gas Regulation (in which the directly applicable obligations are set out) and the proposed draft regulations prepared by DECC meant that there was sufficient clarity to allow an assessment to be made on the question of the continued need for the Undertakings and areas of inconsistency.

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[134]Treaty on the functioning of the European Union: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:115:0047:0199:EN:PDF.

[135]For example, the Undertakings are not 'relevant requirements' for the purposes of Ofgem's enforcement powers under the Gas Act and Ofgem would thus not be able to impose a penalty on Centrica for a breach of the Undertakings under its normal powers.

8.27 Ofgem considered that while there were one or two areas of uncertainty as to how elements of the TIEP would be implemented, it was clear that it would provide a number of safeguards. It considered that there were only two areas of inconsistency and several areas of duplication. In relation to inconsistency, it regarded the current reservation of capacity to Centrica in the Undertakings and exclusion of Centrica from the primary allocation mechanism as inconsistent. It considered that the anti-discrimination provisions of the TIEP appeared to duplicate provisions of the Undertakings, and identified other specific provisions in the Undertakings where there was duplication with the TIEP. Therefore, it would appear that elements of the Undertakings would need to be varied or released. Ofgem indicated that in areas of duplication, were the CC to consider it appropriate to maintain the Undertakings alongside the TIEP requirements it could, in general, operate on that basis.

8.28 However, Ofgem's major concern was that whilst it believed there were some areas where there was a degree of overlap between the Undertakings and the TIEP, the areas in question might not be addressed to the same degree by the implementation of the TIEP, for example the unbundling provisions in the Undertakings went further than the corresponding provisions in the TIEP (for example, the Undertakings required physical separation of the CSL business unit from the rest of CE; and included a prohibition on members of the Centrica group from providing specified services to CSL), and the use of commercially sensitive information. The TIEP would deal with some but not all of the issues currently covered by the Undertakings. Ofgem had a better understanding of what its monitoring powers would be under the TIEP but still considered that additional powers to request information and take action pursuant to the Undertakings were required. It said that it would seek to rely on the power to request information under the Undertakings wherever it had concerns regarding a specific Undertaking as opposed to trying to see if it could characterize a specific Undertaking as akin to a 'relevant requirement' for the purposes of the Gas Act. It said, for example, that it had concerns whether the Gross Nominations obligation could fall within Article 19 of the Regulation (concerning transparency). Although this requirement went to the issue of transparency generally, Ofgem doubted whether it could be included in the scope of the activities listed in Article 19, which contrasted with the advantage of the Undertakings having a direct monitoring and enforcement route. It believed that the regulatory and monitoring powers in the Undertakings were more comprehensive than in the TIEP. Ofgem said that if key provisions of the Undertakings were removed this would shift the compliance focus from an ex ante to ex post approach. This would, in its view, increase the importance of having appropriate provisions for separation and regulatory oversight and monitoring, which should be retained and tailored to the new regime to provide safeguards to address market power issues.

8.29 Ofgem expressed a concern that, absent a restriction on the level of purchases by Centrica of Rough capacity from CSL, Centrica would still have the ability, and may have the incentive, to exploit the capacity allocation process. Ofgem was also concerned that the transparency requirements under the Gas Regulation would not cover the level of detailed information required to be provided to Ofgem and to be published pursuant to the Undertakings.

8.30 Ofgem indicated that the implementation of the TIEP and the publication of its negotiated TPA Guidance consultation were new developments in the industry framework. In its view, an argument that market power concerns would be completely addressed by these developments, so that the Undertakings could be released in their entirety, 'must involve a significant leap of faith' given the untested nature of the regime.

Third party views

8.31 We obtained views from a number of downstream and upstream competitors of Centrica. A number of market participants pointed to the level of uncertainty given the fact the proposals for implementation of the TIEP were not finalized.

8.32 RWE npower said that, based on provisions of the TIEP and Ofgem's TPA Guidance consultation, it drew comfort from the fact that Centrica's ability to exploit its position via Rough would be sufficiently restrained. In relation to removal of the existing limitations on purchases of Rough capacity from CSL by Centrica, it indicated that, based on Ofgem's TPA Guidance consultation and provided Centrica took due account of the guidance, the risk of Centrica being able to exploit any significant market power it may have should be low.

8.33 SSE said that the TIEP introduced a minimum set of rules applicable across Europe and the TIEP requirements did not go far enough in relation to Rough. It said that the Undertakings were justifiably more prescriptive than both Ofgem's and SSE's interpretation of the TIEP requirements and it was important that the Undertakings remained in place to 'top up' the TIEP requirements. It referred in particular to the requirement that Ofgem approved changes to the SSC[136] (Undertaking 2.4(ii)) and to Undertaking 3.3 that limited the amount of capacity Centrica could reserve. It considered the cap on sales from CSL to Centrica to be an important protection and considered that, in the absence of such a restriction, Centrica would be able to either procure all of the capacity with a view to withholding it or selling it on in the secondary market on a discriminatory basis or, even if it did not purchase all capacity, increase scarcity and so drive up the price of storage to the disadvantage of other market participants. Both outcomes would raise an issue not only for the provision of storage but also in relation to the wider gas market and gas prices.

8.34 EDF Energy said that it strongly recommended retaining legal, financial and physical separation. It suggested that we did not know how the TIEP would be transposed, but since the Centrica Undertakings arose from specific concerns in the UK market, it was unlikely that the implementation of the TIEP would make any difference to the need to continue with the Undertakings. It suggested that transparency requirements were key operationally and there was some doubt as to what would be required under the TIEP. It also suggested that strict separation rules were important for market confidence. It said that if Centrica were not subject to the current 15 per cent limit on Minimum Rough Capacity, it considered that a larger amount of capacity would become subject to long-term contracts.

8.35 [A major supplier] had no strong views in relation to individual elements of the Undertakings remaining, save for the effective cap on sales from CSL to Centrica. It considered that the limit had worked well to ensure that enough capacity was released to the market but that the cap on Centrica's purchases from CSL of Minimum Rough Capacity could be increased and suggested a level of 30 per cent.

8.36 BP said that it had no particular concerns about the Undertakings being released and felt that some of the areas it considered important would be covered by the TIEP, such as promoting the secondary market, transparency obligations, the requirement to offer capacity and the publication of terms and conditions.

[136] This is defined in the Undertakings as the Storage Services Contract in use from time to time.

8.37 ExxonMobil said that protection was duplicated between the Undertakings and the TIEP but thought it would be premature to make a final decision on the Undertakings until the Gas Directive had been transposed.

Our assessment

8.38 A number of Centrica's submissions about regulatory reform overlapped with its arguments on market changes discussed in Section 6 of this decision, such as its view that its position in the supply of flexible gas was no longer unique so it should not be required to carry a unique regulatory burden and its comments on the appropriateness of a 'level playing field'. Where appropriate, we have taken into account changes in market conditions when evaluating the implications of the TIEP but, as indicated in Section 6, our view is that there have not been sufficient changes in the market to suggest that the Undertakings are no longer appropriate going forward. As set out in Sections 6 and 7, absent TIEP considerations we have concluded that the adverse findings identified in 2003 (save for the adverse finding in relation to investment) persist. Therefore, the question we have to consider is whether the TIEP provides sufficient safeguards against the adverse findings that we consider still persist from the 2003 report.

8.39 Our task is to consider the implications of the change in circumstance represented by the TIEP. In 2003, the CC considered the Undertakings an effective and necessary remedy to the adverse consequences of the merger. We considered whether the TIEP introduced sufficient safeguards to dispose of our continuing concerns about the adverse consequences of the merger and made a detailed comparison of the terms of the Undertakings alongside the TIEP. The core question is whether we can rely on the TIEP to constrain Centrica's behaviour so that the potential for abuse is satisfactorily removed. We recognize that the TIEP, as an important package of EU legislation introducing a sector-specific regulatory regime designed to improve third party access, is a significant regulatory development.[137] We considered carefully whether the general regime it introduced provided sufficient safeguards against our specific concerns in relation to Rough. However, it is a minimum harmonization package (see paragraph 8.1) and we are therefore able to consider whether the more extensive provisions of the Undertakings should remain in place. Inevitably there are differences between the provisions of the TIEP and the Undertakings. In assessing whether those differences are material, we considered the Undertakings as an overall package, in accordance with their original design. We did not see the value of the Undertakings lying in the fact they are more detailed. The question was whether the nature of the requirements in the Undertaking contributed significantly to the effectiveness of the constraints placed on Centrica against our concerns. For the reasons set out below in paragraphs 8.42 to 8.44, we did not consider that the TIEP placed sufficient constraints on Centrica to address our specific concerns.

8.40 Before discussing the basis of that conclusion in detail, we first address Centrica's submissions on our 12 January provisional decision relating to our approach to the TIEP analysis. As a preliminary point, the use of 'counterfactual' terminology by Centrica may create confusion. The simple point being considered in this review is that there has been a change of circumstance and Centrica is now subject to a set of regulatory requirements not present in 2003 which must be taken into account in assessing how Centrica may be expected to behave.

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[137]In relation to Centrica's submissions on Article 102 and Chapter II, we note that these were in place at the time of the 2003 decision and do not represent a change in circumstance. We also note Centrica's comments that its submission was focused on the TIEP, which was different from general competition law, and therefore do not consider these provisions further.

8.41 In terms of approach to the analysis, Centrica argued that, first, this should be done by considering the impact of the TIEP on its ability and incentive to commit the behaviour, and secondly, that this should be analysed separately in relation to each abuse identified:

(a) In relation to the first point, the nature of the review is, as we have said, a change of circumstances review where an effective remedy has been in place for a number of years. The question is whether a regulatory change means that it is no longer required. We consider that the 'alternative remedy' approach is the right one for this purpose. In any event, we do not consider that this point affects the substance of our conclusions as both Centrica's proposed approach to the analysis and the approach we are adopting address the same core question set out above of whether the TIEP sufficiently deals with what would otherwise be the adverse effects of the merger, and the same factors are relevant to both approaches.

(b) In relation to Centrica's second point on considering each harm separately, we consider that this is artificial for a number of reasons. The Undertakings were designed to be, and have been operated as, a coherent package of interrelated provisions. Specific articles in the Undertakings can address more than one concern identified. Similarly the TIEP requirements are a package of measures and many of the factors relevant to whether the TIEP can be expected to constrain Centrica's behaviour (such as the extent to which the provisions are specific or leave room for interpretation and monitoring and enforcement arrangements) are general in nature and do not apply to specific Articles of the TIEP. Our approach was to consider how the overall package of the Undertakings compares to the TIEP as a framework to inform our assessment of whether the TIEP adequately remedies the remaining problems. For the reasons set out below, when looked at as a package, we considered that there were material advantages in maintaining the Undertakings.

8.42 We considered carefully the submissions of Centrica and Ofgem on the implications of the introduction of the TIEP (as well as those of other parties). We also conducted our own assessment of the TIEP requirements against the provisions in the Undertakings, taking into account Ofgem's TPA Guidance consultation. The Gas Directive and Gas Regulation provide a minimum standard across member states in relation to storage facilities. Article 26 of the Gas Regulation states clearly that the Regulation is without prejudice to the rights of member states to maintain or introduce measures that contain more detailed provisions. Similarly, the Gas Directive is an EU-wide measure aimed at introducing minimum standards[138] across all member states. As such, both are designed to provide basic principles that can apply to storage facilities in a range of markets, including ones where liberalization is relatively recent or yet to occur. While there is some duplication, it is clear that the Gas Regulation is not, and the UK measures implementing the Gas Directive will not be, comparable to the detailed and tailored provisions of the Undertakings which are specifically designed to address competition concerns arising in the UK market in relation to the potential use of Rough by Centrica.

8.43 It is clear that the TIEP leaves considerable scope for interpretation as to what is required by SSOs at an operational level to achieve compliance with these principles. This contrasts with the detailed and specific ex ante requirements in the

[138]We agree with Centrica that the minimum nature of the measures cannot be relied upon in and of itself as a basis to justify the retaining the Undertakings. However, it means that we are able to consider whether the Undertakings should remain in place alongside the TIEP requirements. As indicated above, we have considered carefully whether the TIEP provides sufficient safeguards against our continuing concerns.

Undertakings designed to govern Centrica's operation of Rough. This difference is important in the CC's assessment of whether the TIEP requirements will constrain Centrica's behaviour. The TIEP regime leaves much more room for discretion by Centrica on the conduct required to meet obligations. For example, Ofgem has indicated that in a number of areas it is not clear if conduct currently required by the Undertakings could be required under the TIEP (see paragraphs 8.53 and 8.54). In such a scenario, in a worst case, the conduct by Centrica could not be addressed using the TIEP. Further, even if Ofgem could successfully challenge Centrica's approach to compliance with the TIEP requirements on any aspect, this is by nature ex post and the effect on the market has already occurred—as opposed to clear specific ex ante requirements in the Undertakings.

8.44 We also think it is significant that Ofgem, which is tasked with monitoring and enforcing the TIEP, considered that aspects of the Undertakings should be maintained. In our view, the more flexible, and as yet untested, approach in the TIEP does not provide adequate safeguards at this stage against our concerns relating to Centrica's operation of Rough such as to justify releasing or varying the Undertakings. It is important to note that, contrary to Centrica's comments, our concern does not relate to any uncertainty around DECC's implementation measures; rather the reference to the untested nature of the regime relates to the fact that there is as yet no practice around companies' approach to complying with TIEP requirements or Ofgem's monitoring/enforcement of those obligations.

8.45 One key example of the difference between the TIEP requirements and the Undertakings and where the more flexible requirements in the TIEP do not sufficiently meet our concerns is in relation to restrictions on sales from CSL to Centrica of capacity at Rough, a core aspect of the Undertakings. This is discussed further in paragraph 9.37. Another example of the difference between the protection afforded by the TIEP and the Undertakings is in relation to unbundling, a fundamental aspect of the Undertakings. Article 15 of the Gas Directive requires legal and operational unbundling of SSOs from the rest of a vertically-integrated group. Undertaking 5 provides for legal, financial and physical separation of CSL from the wider Centrica group in accordance with the detailed provisions in that paragraph. Undertaking 5 was included in the Undertakings particularly to address the concern that Centrica may use to its advantage sensitive information gained in the operation of Rough.

8.46 Centrica argued in this area that there was broad duplication between the Undertakings and the TIEP. It recognized that the TIEP did not require physical separation but provided that the minimum requirements were legal, organizational and decision-making separation. It suggested that the EU legislator did not deem physical separation necessary to achieve the same aim. Ofgem indicated that the Gas Directive did not require the same level of unbundling; there would certainly not be a requirement for physical separation.

8.47 Undertaking 5 requires physical separation: CSL staff must be located in separate premises to other Centrica businesses involved in gas supply, shipping, trading, storage procurement activities or asset operations. This is not required under the TIEP. However, the Undertakings included this requirement to give confidence to market participants that separation of CSL from the wider Centrica group would be rigorous. Ofgem told us that the requirement for physical separation had provided a level of confidence that access to information would not be abused by Centrica and that any relaxation of provisions could carry a risk that some of the concerns highlighted by the CC in 2003 may come to fruition. Centrica itself said that even absent a requirement to maintain physical separation, it would not envisage relocating to single premises as any such decision would involve weighing up the cost savings against the cultural changes to CSL and the impact on CSL's business should its customers perceive a lessening of independence. This demonstrates the importance of this requirement for market confidence. Despite Centrica's comments that it would not currently envisage relocating CSL, maintaining physical separation is a point of sufficient concern to be given a legal basis by the Undertakings.

8.48 There are also considerable differences between the more general principles in the Gas Directive and the detailed provisions in Undertaking 5 as to how the operational separation is to be effected. For example, the Undertakings specify that CSL must not share any communication networks and systems with Centrica (Undertaking 5.3(h)) and the specific requirements around provision of services by Centrica to CSL (Undertaking 5.3(e)) in the Undertakings are not addressed in the TIEP. As indicated above, Ofgem considered that the more detailed separation requirements in the Undertakings should be retained. We do not consider that the more general principles in the TIEP provide sufficient protection against our concerns such that the detailed provisions in the Undertakings are no longer appropriate.

8.49 A further example of the difference between the Undertakings and the TIEP are requirements around the publication of information and access to information by Ofgem. Article 19 requires the SSO to make public: Article 19(1) detailed information regarding the services it offers together with the technical information necessary for users to gain effective access; Article 19(2) information on contracted and available storage capacities on a numerical basis on a regular and rolling basis; Article 19(4) the amount of gas in each storage facility or group of facilities, inflows and outflows; and Article 19(5) detailed information on derivation, methodologies and structures of tariffs. Article 15 of the Gas Regulation and Article 13 of the Gas Directive include general requirements around information provision. The Undertakings also require certain specific information to be provided to Ofgem.

8.50 The Undertakings specifically require CSL to:

- *Undertaking 9.1(i):* provide details to Ofgem of the highest and lowest net reservoir volumes for the previous Storage Year;
- *Undertaking 9.1(ii):* provide a report to Ofgem on the previous injection season as prescribed in Annex 7;
- *Undertaking 10:* provide to Ofgem and the OFT details of all Individual Capacity Sales[139] for each month in the format prescribed in Annex 8;
- *Undertaking 11:* publish the Weighted Average Price of Capacity[140] at the beginning of the Storage Year; and
- *Undertaking 13:* publish information on Gross Nominations[141] at least four times a day.

8.51 The CC specified Undertaking 9 to enable Ofgem to verify the amount of Additional Space. In 2003, the CC specified a requirement that the OFT and Ofgem should be provided with details of all deals done by CSL (as provided for in Undertaking 10) as an additional safeguard to ensure that any discrimination could be detected given

[139]This is defined in the Undertakings as all sales of capacity at Rough by CSL on the Primary Market. Primary Market is defined in the Undertakings as the market for the sale by CSL of SBUs, Additional Space and Further Additional Space at Rough.
[140]This is defined in the Undertakings as meaning the volume weighted average price for SBUs sold on fixed price for the forthcoming Storage Year, and the volume weighted average price for SBUs sold for the previous Storage Year.
[141]This is defined in the Undertakings as meaning the aggregate quantities of gas nominated by storage customers for injection into and withdrawl from Rough.

that there was no requirement that sales be via a single auction.[142] Similarly, the CC introduced the requirement to publish weighted average price of capacity to ensure, given sales would be bilateral, that customers would have an opportunity to consider whether CSL may be operating a discriminatory sales process.[143] At the time of the merger, Gross Nominations data had to be published pursuant to the SSC, and the CC in 2003 wanted to ensure that that practice continued.[144]

8.52 Centrica said that the information it was required to provide to Ofgem under Undertaking 9 and the OFT/Ofgem under Undertaking 10 was necessary to monitor compliance with the Undertakings. It indicated that market players should provide information to Ofgem to confirm compliance with the requirements under the TIEP and any reporting requirements should be set at an industry level and not be specific to CSL. In relation to Undertakings 11 and 13, Centrica said that, in practice, the TIEP provided a general requirement that sufficient information was made available to system users consistent with dealing with the concerns of the CC in 2003. It suggested that while the Undertakings may appear more onerous, they simply provided the detail of the information that would be published under the TIEP.

8.53 However, Ofgem indicated that it was unlikely that it could require or expect the level of detail specified in the Undertakings under Article 19 of the Gas Regulation. In relation to requirements to publish information, Ofgem said that it had concerns about Undertakings 11 and 13 and questioned whether Article 19 of the Gas Regulation would capture the detailed nature of these requirements. We consider that absent the Undertakings it is unclear if this information would continue to be made available to the market.

8.54 Ofgem said that its preference would be to rely on the information powers in the Undertakings. It also said that it was not clear to it that information it received under Undertaking 9 such as the highest and lowest net reservoir volume for the previous storage year and a report on the previous injection season would be covered by Article 19 of the Gas Regulation. Article 19(2) required SSOs to make public information on contracted and available storage capacity on a numerical, regular and rolling basis.

8.55 Ofgem said that Undertaking 10 related to monitoring and enforcement, and that there was no direct equivalent of this in the TIEP. It said that it regarded this as a particularly important mechanism to track CSL's sales profile, especially as it could request information on CSL's sales of Further Additional Space and Incremental Capacity.

8.56 Undertaking 12 expressly requires that any information relating to the operation of Rough be disclosed to all market participants simultaneously. Though perhaps implicit in a number of requirements under the TIEP, there is not such a strict requirement. Ofgem said, however, that its view was that Undertaking 12 was duplicated in effect by Article 19 of the Gas Regulation and further underpinned by Article 15(1)(c) of the Gas Regulation and the various non-discrimination provisions. On this aspect we do not consider that there is a material practical risk from relying on the TIEP.

8.57 We concluded that the TIEP is not as comprehensive as the Undertakings. Our market assessment in Section 6 did not identify any market change that justified a lesser set of constraints on Centrica. We considered carefully the implications of Centrica being subject to both the TIEP and the more detailed provisions in the

[142] 2003 report, paragraph 2.186.
[143] 2003 report, paragraph 2.187.
[144] 2003 report, paragraph 2.210.

Undertakings and we do not consider that Centrica's concerns around 'double jeopardy' are well founded in practice. As stated above, we do not consider that the TIEP provides adequate safeguards at this stage against our concerns such as to justify release of the Undertakings. We think it is necessary to maintain the Undertakings and, provided we deal with any conflicts or genuine problems in interaction, we do not consider that this should cause undue difficulty for Centrica. Ofgem is tasked with monitoring compliance with both the Undertakings and the TIEP which in practical terms removes any concerns around uncertainty for Centrica in dealing with two different regulators. Further, there is in essence one compliance task for Centrica, in that in complying with the more stringent and detailed Undertakings Centrica will also meet the minimum TIEP standards where they address the same areas. Ofgem indicated it could, in general, operate with both set of requirements in place.

9. Potential problems on interaction between the TIEP and the Undertakings

9.1 Having concluded that the TIEP does not provide adequate protection we considered whether there are any areas of conflict between the TIEP and the Undertakings. If there were, as noted in paragraph 8.12, we would need to release or amend the specific provisions to avoid incompatibility with EU law. We also considered whether to vary aspects of the Undertakings to align them more closely with the TIEP.

Sales from CSL to Centrica

9.2 One area identified by Centrica as a potential conflict between the TIEP and the Undertakings is the restrictions around Centrica's ability to purchase Rough capacity from CSL.

Undertakings 3.1, 3.2, 3.3 and 15

9.3 Undertaking 15 prevents Centrica from taking part in the Primary Sale Process (the direct sale by CSL of SBUs, Additional Space and Further Additional Space[145] as opposed to purchasing Rough capacity on the secondary market). Undertakings 3.1, 3.2 and 3.3 require CSL to offer at least 85 per cent of Minimum Rough Capacity to third parties and allow Centrica to reserve 15 per cent of Minimum Rough Capacity, up to a specified amount of Additional Space, and all Incremental Capacity.

9.4 The rationale behind Undertakings 3 and 15 is set out in the 2003 report.[146] To ensure non-discrimination, the CC wanted to ensure that Centrica could not avoid the non-discrimination requirements by purchasing a lot of capacity itself and then releasing it in a discriminatory way on the secondary market or through transactions in the forward markets. As a purchaser, Centrica would have no incentive to pay a competitive market price for Rough products as the transaction would be an intra-group transfer. Therefore, the CC said that Centrica should be prevented from taking part in the Primary Sales Process. The CC did not think it proportionate to the adverse effects of the merger to force Centrica to buy all its demand for Rough capacity on the secondary market, so recommended that Centrica should be allowed to reserve up to a specified level Rough capacity for its own use. The CC considered

[145] This is defined in the Undertakings as that space into which gas can be injected over and above Minimum Rough Capacity and Additional Space, which can only be quantified and sold during the Storage Year, but excluding space created through Incremental Capacity.
[146] 2003 report, paragraphs 2.190/2.191.

that it was appropriate to set the proportion of Rough capacity Centrica was able to reserve below its likely demand, as this would encourage Centrica to invest in capacity and ensure that the secondary market worked well.[147] We consider that the effective cap on sales by CSL to Centrica has operated since 2003 in a number of ways to protect against the discrimination concerns that we consider still persist from 2003 (in particular as a fundamental safeguard against the partial input foreclosure concern outlined in paragraph 7.6).

Articles 17 and 15 of the Gas Regulation

9.5 Article 17(1) of the Gas Regulation states that maximum storage facility capacity shall be made available to market participants, taking into account system integrity and operation. Article 17(2) of the Gas Regulation states that the system operator shall implement and publish non-discriminatory, transparent capacity allocation mechanisms. Article 15(1) requires that SSOs shall 'offer services on a non-discriminatory basis to all network users that accommodate market demand; in particular where ... or SSO offers the same service to different customers, it shall do so under equivalent contractual terms and conditions'.

9.6 Article 13(1)(b) of the Gas Directive provides that SSOs shall 'refrain from discriminating between system users or classes of system users, particularly in favour of its related undertakings'.

Centrica's views

9.7 Centrica said that the requirements of Undertakings 3.1, 3.2, 3.3 and 15 were in conflict with Article 17 of the Gas Regulation. It said that Article 17(1) prohibited the reservation of capacity and allowed related undertakings to take part in the Primary Market. It also said that Undertaking 15 appeared to be inconsistent with Article 15(1) of the Gas Regulation, which required services to be offered on a non-discriminatory basis, including to related undertakings such as Centrica. Centrica pointed to a number of safeguards introduced by the TIEP to ensure that there was no discrimination.

DECC's views

9.8 DECC considered that excluding Centrica from the primary sales process may be in breach of Article 17(1) of the Gas Regulation and that the reservation of up to 15 per cent of capacity to Centrica was probably inconsistent with Article 17(2), which referred to a non-discriminatory and transparent capacity allocation mechanism.

Ofgem's views

9.9 Ofgem agreed with Centrica that these particular Undertakings conflicted with the TIEP as, in its view, reservation of capacity and exclusion of Centrica from the primary allocation process were incompatible with the TIEP. In its consultation on the TPA Guidance, Ofgem explained that, in its view, Article 13 of the Gas Directive and Articles 15 and 17 of the Gas Regulation prevented an SSO reserving capacity for their related undertakings. Ofgem indicated that reserving capacity for related undertakings could be considered a form of discrimination in favour of the SSO's related

[147] 2003 report, paragraphs 2.214 & 2.216.

undertakings. In its view, these provisions meant that related undertakings should be able to purchase capacity on the primary market.[148]

9.10 Ofgem recognized, however, that the reservation of Rough capacity to Centrica and exclusion of Centrica from the primary sales process provided for by the Undertakings was designed to 'cap' the amount of capacity Centrica could acquire at Rough (as opposed to discriminate in favour of Centrica). Ofgem considered that a capacity cap could be designed in a way that was compatible with the TIEP. For example, an amended Undertaking could be given that specified the maximum amount of capacity that Centrica could acquire in the primary allocation process when all the available capacity was offered to the market via an objective, transparent and non-discriminatory allocation mechanism. It welcomed the CC's provisional decision on variations to enable Centrica to participate in the Primary Sales Process and to remove the right for Centrica to reserve any Rough capacity but to replace this with a cap on the amount of Minimum Rough Capacity and Additional Space that Centrica should be able to purchase from CSL. It considered that the design of this alternative mechanism was more aligned with the scheme of the TIEP.

9.11 Ofgem had concerns that Centrica retained the ability and may have the incentive to exploit the capacity allocation process, notwithstanding Article 17 of the Regulation. It said that Centrica could potentially purchase capacity from CSL with a view to either withholding capacity to increase wholesale gas prices (and the value of storage services) or partially foreclosing competitors, increasing their costs in related markets. In Ofgem's view, Centrica could, alternatively, purchase capacity to create scarcity and increase the value of storage services (and of wholesale gas). As a result, in its TPA Guidance consultation, Ofgem stated that it would expect any market player with significant market power to be able to demonstrate that the capacity purchased reflected its demand requirements. Ofgem said in its TPA Guidance consultation that it did not propose to prescribe an upper limit. Ofgem explained that the more capacity Centrica held, the more likely Ofgem would want to look at the allocation process and Centrica's need for such capacity.This was by nature an ex post approach as opposed to ex ante. Ofgem considered that, if there was a move away from an ex ante approach, it would increase the importance of regulatory oversight. However, it said that one disadvantage of setting an inflexible cap was that its level would reflect a judgement made at a certain time about what would happen in the supply of flexibility and the related undertaking's flexibility requirements.

Our assessment

9.12 We could see that there was some force in the argument that the mechanism in Undertakings 3.1 to 3.3 and Undertaking 15 capping Centrica's right to obtain Rough capacity from CSL by prohibiting Centrica from taking part in the Primary Sales Process, but allowing it to reserve capacity in advance of that process, conflicted with Article 17 of the Gas Regulation (and possibly Article 15 of the Gas Regulation and Article 13 of the Gas Directive). These Undertakings prohibit Centrica from acquiring Rough capacity in the Primary Market and limit Centrica's right to obtain Rough capacity other than in the secondary market. However, we consider that the existing system of limited rights of reservation and exclusion from the Primary Sales Process may be consistent with the TIEP once the significance of Centrica's ownership of Rough in the light of its downstream market position and the importance of ensuring non-discriminatory third party access to Rough are properly taken into account.

[148] Paragraphs 6.15 & 6.16, TPA Guidance consultation.

9.13 We consider that an alternative mechanism could be designed to limit Centrica's right to purchase Rough capacity from CSL that would be more closely aligned with the scheme of the TIEP. The mechanism would be to allow Centrica to participate in a transparent and non-discriminatory primary allocation process subject to an upper limit on the amount of capacity that it could acquire. Either approach would effectively cap the amount of Rough capacity that Centrica could obtain from CSL.[149] Capping Centrica's right to obtain Rough capacity from CSL to protect customers from discrimination and to ensure third party access would promote and not conflict with the objectives of the TIEP. We consider that to the extent that the design of the cap also continues to play a role in incentivizing investment and the development of the secondary market (and innovation), this also is consistent with the TIEP's objectives. Recital 29 of the Gas Regulation sets out that trading primary capacity rights is an important part of developing a competitive market and creating liquidity, and Article 22, for example, contains a number of measures to facilitate secondary trade.

9.14 We discussed in Section 7 that at the time of the 2003 report, to incentivize investment a limit was placed on the amount of Minimum Rough Capacity that Centrica could purchase below its level of demand.[150] The CC also recommended that Centrica should be able to reserve all Incremental Capacity (created through investment in Rough) to itself. In paragraph 7.26, we decided that we did not intend to use the level of the cap as a tool to incentivize Centrica to invest in developing Rough capacity (see also paragraph 9.42). Under the new mechanism, Centrica would no longer be able to reserve Incremental Capacity and we consider the treatment of Incremental Capacity in paragraph 9.40. We also need to take into account that in setting the level of the reservation in 2003 the CC recognized that by setting the level below demand it would facilitate the secondary market in products based on Rough capacity (paragraph 9.4). We consider that in setting the level of the cap, it is relevant to consider its role in ensuring that the secondary market worked well.

9.15 We have decided to remove Undertaking 15 thereby removing the restriction on Centrica taking part in the Primary Sales Process. We have also decided to remove Undertakings 3.1, 3.2 and 3.3 relating to reservation of capacity to Centrica and replace those with an Undertaking that places a limit on the amount of capacity at Rough that Centrica is able to purchase from CSL. This would not guarantee that Centrica will receive the maximum level of capacity, rather it would have to participate in the non-discriminatory allocation processes adopted by CSL. We discuss our rationale and decision for determining the level of the cap below (paragraphs 9.31 to 9.58), and our conclusions on whether there should be a mechanism for adjustment of the limit going forward.

Variations to the Undertakings concerning the cap

9.16 We set out the views of parties about the maximum amount of Rough capacity that Centrica should be allowed to purchase from CSL and the impact on trading of Rough capacity of varying this amount and set out our assessment and conclusion. We also discuss whether we should include an adjustment mechanism to allow the level of capacity Centrica is able to purchase to be varied to account for relevant changes.

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[149] As the current provisions in the Undertakings operate to effectively act as a 'cap' on Centrica's purchases of Minimum Rough Capacity and Additional Space from CSL, at various points in the assessment below reference is made to 'maintaining' a cap or 'adjusting' the level of the cap.
[150] 2003 report, paragraph 2.214.

Maximum amount of Rough capacity Centrica should be able to purchase from CSL

9.17 CSL said that it supported the view that an alternative mechanism could be designed to limit Centrica's right to purchase Rough capacity from CSL that would be more closely aligned with the scheme of the TIEP. CSL said that Ofgem confirmed to it that its intention was to design a negotiated Third Party Access (TPA) regime that would accommodate storage facilities of all sizes (so Ofgem would be comfortable 'backing' Rough into this regime absent the Undertakings). CSL highlighted paragraph 6.27 from the Ofgem consultation, which stated that 'Ofgem does not propose that there should be an upper limit on the amount of capacity that market players can hold at their own storage facilities as long as the amount of capacity held can be justified'. It said that Ofgem had reached this conclusion having recognized the general difficulties of setting a cap at an appropriate level (which remained so as market circumstances changed) and the potential harm that caps may have on investment decisions. CSL did not think an ex ante cap should be imposed on Centrica. It said that it supported Centrica being subject only to the approach in Ofgem's TPA Guidance consultation in relation to Rough—namely that an ex post approach whereby Centrica should be able to demonstrate the amount of storage retained within the group was consistent with the related undertakings' requirements for flexible gas. CSL said that an advantage of ex post monitoring as opposed to an ex ante cap was that it was possible to see how capacity purchased had been used by CE. It said that in trying to establish what part of CE's requirements for flexible gas should come from Rough the CC risked being overly intrusive and was out of step with the workings of a fully liberalized gas market.

9.18 CSL said that if the CC believed Ofgem's arrangements were not appropriate, an alternative arrangement would be to consider a 'flexible cap' on Minimum Rough Capacity. CSL recognized that the level of the cap was primarily of concern to CE but said it should be free to deal with any customer. CSL said that Centrica had a share of domestic gas supply of 43.8 per cent and the starting level of a flexible cap would need to be commensurate with this level of demand (although it recognized that the level of a cap, if applied, would be lower). It said that the CC's proposal in its provisional decision on variations of a cap of 25 per cent would appear to be materially below CE's requirements and the CC had not provided objective reasoning for that level.

9.19 CSL said that the cap should be applied to each aspect of Minimum Rough Capacity (ie space, deliverability and injection). It said that Centrica should in addition be entitled to the other space it was presently entitled to under the Undertakings (1,534 GWh of Additional Space and all Incremental Capacity) and that this capacity was created by CSL in good faith following agreement of the 2003 remedies; the Undertakings were designed to incentivize investment and this capacity should be treated in the same way as any other Centrica investment in new flexibility capacity. CSL said that related undertakings, such as CE, should be allowed to purchase capacity for resale in a way that added value, and that this activity should not be prohibited as long as there was no discrimination in the Primary Sales Process.

9.20 CE said that the provisions of the Undertakings should be consistent with the final version of Ofgem's proposed TPA Guidance, in particular the principle that affiliated companies could 'justify that the amount of storage capacity retained by the group (purchased by the SSO's[151] related Undertakings) is consistent with the market player's requirements for flexible gas' (paragraph 6.19). It said that its preferred solution would be to remove the cap, subject to compliance with the Ofgem TPA

[151]Storage system operator.

Guidance, but if this approach was not accepted the existing 15 per cent cap on Minimum Rough Capacity should be increased. It said that applying the CC approach outlined in its provisional decision on variations of determining the amount of Rough capacity Centrica needed to buy from CSL were it independent gave rise to a figure of at least 35 per cent. It estimated its share of the Great Britain requirement for seasonal flexibility to meet its final customers needs as 35 to 40 per cent and said that this was the most natural benchmark for a cap on Minimum Rough Capacity, which should not be very far away from that share.

9.21 Although before it acquired Rough it booked around half its market share in Rough, it did not believe this level of booking would be a suitable basis for setting its share of Rough now. It saw no logic for setting a cap below the 30 to 31 per cent historic level. It said that its residential market share had recently stabilized and should not necessarily be expected to decline in the near future. CE said that Centrica's 'legacy' sources of seasonal flexibility (Morecambe gas, flexible beach gas purchase contracts including Sean, and long-term interruptible contracts) had declined substantially since 2003 and/or would shortly expire. It said that the decline would continue and its overall access to alternative sources of owned or contractual flexibility would fall far short of its 35 to 40 per cent requirement. It said that Morecambe and Sean were identified in 2003 as relatively good substitutes for Rough and the significant role of these sources in the flexibility market in 2003 meant that it did not need to book more Rough capacity at the time. It said that although generally it had not purchased Incremental Capacity, Sean and interruptible sales contracts still contributed a significant amount of flexibility in the last full winter ([✂] GWh/day) and that this would not be available to it in future.

9.22 CE provided calculations that showed its estimated seasonal flexibility position including its present share of Rough capacity was substantially long in 2002/03, it had a small surplus in 2010/11 but was substantially negative by 2011/12.[152] It said that even if its access to Minimum Rough Capacity was raised to 35 to 40 per cent, it would be significantly short of capacity and would need to make gas market purchases. It emphasized the importance in managing risk of having a diverse portfolio of sources of flexibility and said that no residential supplier would wish to be strongly associated with a single asset, but a reasonable indicator would be for it to typically purchase 35 to 40 per cent of Rough, in line with its overall share of gas flexibility requirements, and access other forms of flexibility in order to obtain a balanced portfolio.[153] CE said that it would be expected that an independent gas supplier might wish to spread its flexibility requirements fairly evenly across all flexibility sources (recognizing that in reality it would not be possible to obtain a fully balanced portfolio, noting that most third party storage sites were not subject to third party access requirements). It said that if it had the opportunity to buy more Rough capacity from CSL, it would not necessarily make purchases up to the limit, but would test the option against the value of other flexibility sources and the traded gas market.

9.23 CE said that using a mechanical formula to determine the level of the cap was neither realistic or appropriate since 'we were in a more complex world' but that it was sensible to provide for an adjustment mechanism.

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[152] CE's figures showed across the winter it had access to [✂] GWh/day of flexibility in 2002/03 (including 15 per cent of Minimum Rough Capacity and all Incremental Capacity, [✂] GWh/day in 2010/11 and [✂] GWh/day in 2011/12. This compared with its requirement for flexibility of [✂] GWh/day in 2002/03, [✂] GWh/day in 2010/11 and [✂] GWh/day in 2011/12. This gave a net surplus of [✂] GWh/day in 2002/03 and [✂] GWh/day in 2010/11 and a net shortfall of [✂] GWh/day in 2011/12. Even if Centrica had access to [✂] per cent of Minimum Rough Capacity, it would still have a net shortfall in 2011/12 of [✂] GWh/day compared with a net shortfall in 2011/12 of [✂] GWh/day if it had access to [✂] per cent of Minimum Rough Capacity.

[153] CE said that it had recently purchased [✂] GWh/day deliverability of Hornsea capacity for 2011/12.

9.24 Ofgem's concerns were detailed in paragraph 9.11, where it said that notwithstanding Article 17 of the Gas Regulation Centrica retained the ability and could have the incentive to exploit the capacity allocation process. It did not propose a hard cap in its TPA guidance but agreed that a cap on the amount of Rough capacity that Centrica may acquire could be designed in a way that was consistent with the requirements of the TIEP. It said that in principle it had no objections to there being a cap in the Undertakings on sales from CSL to Centrica of Rough capacity. It supported the proposal that any ex ante cap could in principle include an adjustment mechanism, and confirmed that it would be willing to be tasked with overseeing the adjustment process.

9.25 Ofgem said that it had not undertaken a detailed analysis of the amount of Rough capacity Centrica may require at this stage. Therefore it was not able to comment on whether the CC's proposal of a 25 per cent cap on Minimum Rough Capacity in its provisional decision on variations was appropriate. However, it welcomed the overall approach of identifying a level of cap that would be consistent with purchasing behaviour by Centrica were it not in the same group of companies as the owner of Rough. It said that the primary consideration when setting the cap should be to ensure that Centrica's capacity at Rough was reflective of its requirements for flexible gas supplies. This should apply to all aspects of Rough capacity. It commented that in setting the level of the cap in its provisional decision, the CC seemed to have taken into account all factors it had identified as factors that were likely to influence any level of the cap. Ofgem said that in its TPA Guidance it had provided its views on the factors that market players could consider when determining the amount of storage capacity that may be purchased by related undertakings. It proposed that the factors that were likely to influence the cap should include Centrica's contractual arrangements for other sources of supply (which should provide an indication of Centrica's attitudes towards risk) and the position of Centrica in related markets (eg its domestic retail share). Ofgem said that a straight read across of domestic market share was not an appropriate way of setting the level of the cap, and noted that this was only one of the factors affecting a market player's requirement for storage capacity (see above). Ofgem clarified that its comments to CSL about its TPA regime were that the regime would be designed to cater for different circumstances that could arise in the market, but it did not express a view to CSL about whether the Undertakings should be retained.

9.26 Other parties who provided views on this point were in favour of retaining a cap on Centrica's purchases of Rough Capacity from CSL. SSE said that Centrica continued to have significant market power. EDF Energy said that Centrica remained dominant in terms of market shares in both retail and storage markets and that gas sourcing issues and greater use of alternative energy sources such as wind power would increase demand for storage, but no significant additional storage was due to be commissioned.[154] It said that we should consider using a formula to calculate the amount of Minimum Rough Capacity Centrica was entitled to. Statoil believed that some form of cap should be maintained on Centrica's purchases of Minimum Rough Capacity. It said that this was primarily necessary to ensure that CSL continued to have incentives to maximize the availability of Rough capacity.

[154]However, CE said that intermittent wind power was more relevant to fast-cycling storage and Rough (with relatively slow injection rates) was not best placed to meet this demand.

The effect on the trading of Rough-related products and gas liquidity in trading if Centrica were allowed to buy more Rough capacity than it can currently reserve

9.27 CSL said that it had actively facilitated the efficient operation and development of the secondary trading market in Rough capacity. However, trades were thin and bid/offer spreads were large. It believed the reason why was that, in order to monetize their investments in Rough capacity, customers hedged their anticipated usage in the forward markets and required their physical capacity to honour traded positions. It said that another reason customers might be reluctant to sell on their capacity was that they would lose the option to capture additional value as a result of volatility within the storage year. CSL said that the secondary market generally included a ‘trader’s margin’ and a trader would usually only sell capacity when the value of the storage contract exceeded the level the trader could achieve by trading. CSL said that in general customers appeared to see more value in using their booking to trade gas (either in-store or in the wholesale market) rather than retrading the Rough booking itself. It said that customers used their physical bookings in Rough to support trading positions. It said that there was also a significant amount of secondary trading of within year gas in store (where Rough capacity holders sell gas already in store to the wider storage community). If other Rough capacity holders’ inventories were below their requirements, they were able to purchase gas in store as an alternative to purchasing capacity and injecting gas themselves. It said that it was difficult to say whether, if Centrica bought more capacity, there would be an impact on the secondary market for Rough-related products. It would depend on whether Centrica used capacity purchased for its downstream business or for trading, but if Centrica purchased more Rough capacity and less gas in the traded market, there was no reason to expect less gas in the traded market to be sold. Rather the gas would likely be sold to one of the other traders or producers that were currently buying Rough and there would be no clear net effect on liquidity.

9.28 CE agreed that the secondary market in Rough capacity was limited and illiquid. It said that Rough capacity holders would typically only resell the capacity as a secondary storage product when they could realize a premium to their own optimization value which third party buyers were generally unwilling to pay. It said that transactions in the wholesale gas market were more attractive, so the 15 per cent cap on CE’s purchases of Minimum Rough Capacity had not contributed materially to the development of the secondary market. It did not see the logic in ‘forcing’ an additional intermediary layer between Rough and the final end-users of flexible gas (who were in the main retail customers) and said that an artificially constraining cap that forced additional intermediary stages into the gas flexibility supply chain added an extra layer of cost, with no benefits for Centrica’s downstream rivals or final consumers. CE did not accept that a cap above 25 per cent would have a material adverse impact on overall traded gas market liquidity. It said that CE was already a major contributor to liquidity at the NBP and would continue to do so even with a cap set at a level to represent its share of overall market requirement for flexibility.

9.29 Ofgem considered that there were significant potential risks associated with Centrica acquiring more Rough capacity. If Centrica acquired a higher proportion of Rough capacity, less Rough capacity would be available for downstream competitors of Centrica and/or gas traders. Ofgem said that any loss of liquidity could also have secondary impacts. For example, the loss of liquidity could result in downstream competitors looking to secure capacity at Rough on long-term contracts. This would increase the risk that traders would not have access to Rough capacity. It said that the impact of Centrica taking more Rough capacity on trading market liquidity and eventually on gas prices could be significant and agreed that setting a lower cap may provide stronger incentives to CSL to facilitate secondary trading of Rough capacity. Ofgem noted that there was a risk that CSL may acquire more capacity for use by itself, in which case CSL may become more of a gas trader which could distort competition.

9.30 The views of other parties were mixed. SSE said that if the level of capacity Centrica could purchase from CSL were increased, Centrica could have the ability either to purchase all of the available capacity with a view to withholding capacity, selling it in the secondary market on a discriminatory basis or increasing scarcity and so drive up the price of storage to disadvantage other market participants. SSE said that this would also impact on the wider gas market and gas prices. EDF Energy predicted that if Centrica were allowed to buy more Rough capacity than it could currently reserve under the Undertakings, liquidity could decrease as the extra volumes could foreclose the market. However, Statoil said that secondary market activity was limited and mainly related to a market for gas in store. It did not see that the limit on Centrica's capacity would affect this.

Our assessment

9.31 In paragraph 9.15 we decided that we should remove the Undertakings preventing Centrica from taking party in the Primary Sales Process and allowing Centrica to reserve certain capacity and, in principle, replace this with a cap setting an upper limit on the amount of Rough capacity that Centrica can acquire from CSL. We have identified the following additional capacity-related points that we need to consider:

(a) Given Centrica's submissions that it is no longer necessary to maintain a cap in the Undertakings given TIEP requirements, should a cap be maintained in the Undertakings or is ex post monitoring sufficient? If a cap is imposed, should it be a hard cap or a flexible cap?

(b) What types of capacity should be subject to a cap and should we have different levels of cap for different types of capacity (eg Additional Space compared with Minimum Rough Capacity)?

(c) Should the aim of encouraging investment still be a factor in determining the level of the cap?

(d) What could the impact of varying the cap be on the secondary trading market?

(e) Given these considerations, what should be the level of the cap?

Cap or ex post monitoring; hard cap or flexible cap?

9.32 CSL and CE were in favour of there being no cap on purchases by Centrica of Rough capacity from CSL in the Undertakings given Ofgem's TPA proposals.

9.33 Ofgem's TPA Guidance sets out its preliminary view that any market player with significant market power (SMP) should be able to demonstrate that the amount of storage capacity retained is consistent with the market player's requirements for flexible gas supplies, taking its other sources of flexibility into consideration. Ofgem would consider whether related Undertakings were using capacity in a manner consistent with the way it would be used if the storage capacity was independently owned. If Ofgem became concerned that the level of purchasing by Centrica was out of line with its demand requirements, it would look at the capacity allocation process and whether Centrica was meeting TIEP requirements.

9.34 We noted Ofgem's concern that Centrica retained the ability and could have the incentive to exploit the capacity allocation process notwithstanding Article 17 of the Gas Regulation (paragraph 9.11). Although Ofgem did not propose a hard cap, it agreed that a cap could be designed to be consistent with the TIEP and recognized that if there was a move from an ex ante approach, this would increase the importance of regulatory oversight/monitoring provisions. Ofgem said that in principle it had no objections to a cap in the Undertakings on sales from CSL to Centrica of Rough capacity,with an appropriate adjustment mechanism.

9.35 All other third parties who responded to our Notice on this point were in favour of retaining a cap in the Undertakings on Centrica's purchases of Rough capacity. CSL noted that most of the respondents who had raised concerns on this point had ownership interests in storage facilities and therefore were competitors to Centrica in the flexible gas market and had an interest in increasing Centrica's demand for their own products. CE said that two respondents arguing for a low cap had ownership interests in storage and therefore could have an interest in CE being short of gas flexibility. However, as most of the third parties were retail gas suppliers, they also have a key interest in ensuring that there is adequate Rough capacity available to the market and third party evidence has been considered alongside a range of other evidence.

9.36 We considered these views carefully. We note that the Ofgem TPA guidance is designed to provide operational guidance to SSOs to help reduce the risk of non-compliance with TIEP requirements. It discusses how Ofgem may interpret TIEP provisions which are general provisions of law regulating any entities that qualify under its provisions. Our task is to consider whether the TIEP requirements provide sufficient safeguards to remove the need for a cap in the Undertakings in relation to Centrica's access to Rough. In line with our conclusion in Section 8 that there is an ongoing need for the detailed provisions of the Undertakings relating specifically to Rough, we are not satisfied that the introduction of the minimum provisions in the TIEP provides sufficient safeguards to remove the need for a cap in the Undertakings on purchases by Centrica of Rough Capacity from CSL.

9.37 We consider that there is an important practical difference between a specific cap on Centrica's purchases and the operation of the TIEP requirements as envisaged in Ofgem's TPA Guidance consultation. Centrica would make its own assessment of the level of purchases that met the TIEP requirements. Ofgem would look ex post at the amount of Rough capacity Centrica purchased and if it considered that the level indicated that Centrica may not be complying with TIEP requirements Ofgem would scrutinize Centrica's demand and CSL's allocation process to ascertain whether Centrica had been acting in a manner inconsistent with the TIEP requirements. However, by this point the adverse impact on non-discriminatory third party access to Rough would have occurred. In contrast, a cap sets in advance a clearly understood limit on the level of Centrica's purchases and thus guarantees a minimum level of non-discriminatory third party access. A cap also gives important comfort to the market about access to Rough capacity. It was clear to us that as a clear, transparent and easily enforceable limitation on Centrica the cap was likely to act to prevent discrimination occurring in a way that ex post monitoring of compliance with TIEP requirements may not, and we decided to retain the cap.

9.38 We see that a disadvantage of a hard cap is that it would not adapt to changes in market conditions, and we recognize the benefits of allowing flexibility in setting the level of the cap so that it could respond to changes in Centrica's demand, and market circumstances. We intend to build flexibility into the determination of the cap and discuss the mechanism for this in paragraphs 9.59 to 9.62..

Should we have different levels of cap for different types of capacity?

9.39 The Undertakings presently allow Centrica to reserve up to 15 per cent of Minimum Rough Capacity, 1,534 GWh of Additional Space and all Incremental Capacity.[155] Minimum Rough Capacity is approximately 30,300 GWh, so the major element of the current effective 'cap' on Centrica's purchases is to ensure that Centrica offers for sale 85 per cent of Minimum Rough Capacity to third parties.

9.40 We note CSL's comment that it had entered into the Undertakings with the understanding that Centrica would be able to keep the Incremental Capacity created since 2003. We recognize that Centrica had a reasonable expectation that it would not be restricted under the Undertakings from accessing that capacity. Therefore we consider that we should place a cap on the amount of Minimum Rough Capacity and Additional Space Centrica should be permitted to purchase. Centrica should be allowed to purchase up to a certain percentage of Minimum Rough Capacity and 1,534 GWh of Additional Space. This arrangement is equivalent to stating that CSL must sell a minimum percentage of Minimum Rough Capacity plus all Additional Space above 1,534 GWh to parties external to Centrica.

9.41 We do not propose to place any cap on purchases by Centrica of Incremental Capacity (created since 2003 or going forward) or Further Additional Space. In all cases, Centrica would need to procure capacity by participating in the objective non-discriminatory primary allocation process adopted by CSL (it would not be guaranteed this capacity as the right to reserve capacity would be removed). Ofgem welcomed this approach to Incremental Capacity and said that in its view it would ensure that appropriate investment incentives were maintained. For completeness, Incremental Capacity and Further Additional Space would also be subject to the remaining requirements in the Undertakings (for example, relating to non-discrimination, use of contracts and provision of information). We expect that CE would be able to bid competitively to gain access to the capacity it required.[156]

Should the aim of encouraging investment still be a factor in determining the level of the cap?

9.42 We note that the nature of the cap we discussed in paragraph 9.15 means that further investment in Rough would continue to be encouraged under the Undertakings, since there would be no restrictions on Centrica's ability to purchase further capacity created (subject to the requirements of the Undertakings and the TIEP). However, in paragraph 7.26 we said that we do not plan to design a cap at a lower level going forward than that we would otherwise set to incentivize future investment.

Impact of varying the cap on the secondary trading market

9.43 At the time of the 2003 report, it was considered that setting the level of the reservation below Centrica's likely level of demand would give Centrica an incentive to ensure that the secondary market worked well, since it would likely be an active buyer.

9.44 There was general agreement during this review that the secondary market for Rough capacity was thinly traded, with the exception of gas in store at Rough. The reason appears to be that traders see more value in using the capacity to back up trades made in the wholesale gas markets than they can in the secondary market,

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[155]No express provision is made as to reservation of Further Additional Space.
[156]The other aspects of the Undertakings would still apply to all capacity.

and capacity holders would only sell on Rough capacity at a premium to their own value. However, we noted parties' comments that a change in the level of purchasing by Centrica could have wider implications for trading. Ofgem and other parties were concerned that there could be an impact on liquidity in the trading market for Rough-related products. Ofgem was concerned that if Centrica acquired a higher share of Rough, less would be available for downstream competitors[157] and/or gas traders and this would result in a reduction in liquidity. EDF Energy and SSE suggested that there would be an impact not only on the price of storage but also on the wider gas market and gas prices, but Statoil seemed less concerned. CSL said that if Centrica acquired more Rough capacity, this would simply free up other sources of gas flexibility in the wider trading market. As these would become available to the market for others to purchase, there would be no resulting impact on gas prices. CE did not see the logic in 'forcing' an additional intermediary trading layer between Rough and its final end-users since it would be likely to add to the cost of flexibility.

9.45 We note that there is a discrepancy in the views of CSL and CE. CSL said that the wider trading market would allow other market participants to buy more flexible gas. However, CE considered that using the trading market increased its cost of flexibility. We consider this an illustration of an inconsistency in Centrica's position. On the one hand, Centrica has said that there are other sources of flexible gas besides Rough, which meant that Rough did not have market power. However, on the other hand, it has argued that it was important for it be able to obtain more Rough capacity for itself (eg see paragraph 7.8). If Rough did not have market power, Centrica should be unconcerned about being able to obtain more Rough capacity for itself, and if it believed that there would not be an impact on others of having access to less Rough capacity, it should have no concerns about the level of Rough capacity it is entitled to obtain under the Undertakings.

9.46 We consider that there would be an impact on downstream competitors if both they and traders were able to access less Rough capacity by virtue of Centrica purchasing more. A downstream competitor of Centrica would be able to use the trading market to purchase gas but given the continuing importance of Rough as a source of flexibility, to do so would increase its exposure to short-term price volatility. The impact would be more significant because the capacity held in Rough appears to be used by owners of capacity to support wholesale gas market trading positions. Therefore the impact of Centrica taking more Rough capacity on trading market liquidity, and eventually on gas prices, could be significant. This potential impact on trading in Rough-related products and the wider trading market of a higher cap is a factor we need to weigh in considering a change to the level of the cap.

The level of the cap

9.47 The objective of the cap was to address our adverse finding in 2003 in relation to discrimination in the sale of Rough capacity. The CC said that Rough capacity should be sold on non-discriminatory terms. Centrica should not take part in the Primary Sales Process to prevent it getting round this requirement by purchasing a large proportion of Rough capacity and selling it in a discriminatory way, but it should be allowed to reserve a proportion of Minimum Rough Capacity.[158] We consider that the effective cap on sales by CSL to Centrica operates in a number of ways to protect against the discrimination concerns (see paragraphs 7.4 to 7.16) that we consider

[157]In paragraph 7.14, we showed that the proportion of Rough bought by downstream competitors had not changed significantly since 2003 and that other [✂] purchasers of Rough capacity were traders and producers. The flexibility provided by Rough is ultimately mainly used to allow suppliers to meet the demand of domestic customers, so will ultimately be used by downstream competitors of Centrica.
[158]2003 report, paragraphs 2.181–2.192.

still persist from 2003 (in particular, as a fundamental safeguard against the partial input foreclosure concern outlined in paragraph 7.6). Our approach has therefore been to identify the amount of Rough capacity that Centrica would acquire from CSL were it not in the same group of companies as the owner of Rough.

9.48 We note that in paragraph 9.15 we decided to introduce an alternative mechanism of a cap on purchases by Centrica to achieve the same effect as the combination of the ban on Centrica taking party in the Primary Sales Process and reservation mechanism. In paragraphs 9.32 to 9.38, we decided that there should be a firm cap on the amount of capacity that CE could buy from CSL.[159] In paragraph 9.40, we decided that a cap should apply to Minimum Rough Capacity and Additional Space but not Incremental Capacity created since 2003 or created going forward or to Further Additional Space. In paragraph 7.26 we said that we did not plan to set the cap at a lower level than we otherwise would to incentivize future investment.

9.49 We considered how to determine the appropriate level for the cap. EDF Energy suggested that we could use a formula to calculate the percentage of Rough capacity that CE should be able to purchase. However, CE said that it was not in favour of using a mechanical formula to determine the level of the cap since 'we were in a more complex world'. We consider that such a formula, although superficially attractive because of its apparent transparency, in practice would be complex and may have unintended effects (such as business decisions being taken to affect the level of the terms in the formula). A formula may also not accommodate all relevant factors such as how substitutable for Rough each gas source is and how flexible demand from each customer type is compared with those of other suppliers. We are therefore not minded to pursue a formula-based cap. Our approach is to consider carefully the views received and exercise our judgement on various factors to determine the level of the cap. We identified a number of often conflicting considerations that have led us to our final determination. These are listed in paragraphs 9.50 to 9.56. Most of these factors suggest that the existing level of the cap may still be appropriate. However, the change in Centrica's overall position argues for an increase to ensure that the cap remains a proportionate remedy against our concerns.

9.50 While recognizing the importance of Rough as a source of flexibility and its role within a portfolio of flexibility, we would expect CE to make use of other sources of flexibility. CE said (paragraph 9.22) that in view of the decline in alternative sources of flexibility, it would look to a mix of flexibility instruments,[160] of which Rough would be a part, and if it was not subject to the 15 per cent cap it would be interested in buying more Rough capacity.

9.51 We consider it reasonable to expect CE to access Rough-related products (such as gas in store) on the secondary market. Downstream competitors of Centrica do not generally seek to obtain their domestic market share in Minimum Rough Capacity in the Primary Sales Process. We note that a [✂] proportion of Rough capacity is bought by upstream producers and gas traders. Gas in Rough is ultimately sold to downstream customers, so domestic suppliers access the flexibility provided by Rough through trading. We note that CE argued against having an additional trading layer between Rough and end-users (paragraph 9.28). However, other parties, including Ofgem, were concerned about the impact on trading market liquidity of Centrica acquiring a higher share of Rough.

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[159] However, there should be the opportunity to vary the level, as discussed in paragraphs 9.59 to 9.62
[160] We see CE's recent purchase of some capacity at Hornsea as consistent with this approach.

9.52 CE's purchasing history at Rough also sheds light on its reasonable demand for Rough. Since 2003, CE has been restricted in the amount of Rough capacity that it can use. However, since 2003 CSL has created Incremental Capacity that CE was able to use in addition to the amount of Minimum Rough Capacity it could reserve. Our view of CE's use of that capacity is that it has in practice been limited. CE has only [✂].[161] We recognize that the amount of Incremental Capacity and Additional Space used by CE at Rough is not an exact parallel for the amount of additional storage that it might acquire if it were not a related party. Nonetheless Centrica places particular value on SBU capacity and a significant proportion of Incremental Capacity is available in SBU form. The approach adopted by CE to purchasing incremental SBUs is not consistent with a higher demand for storage at Rough because it has chosen [✂]. CE said that this needed to be seen in the context of its evolving gas portfolio and that as recently as the last full winter Sean and interruptible sales contracts together contributed almost [✂] GWh/day of total Rough withdrawal capacity and that its need for Rough capacity was lower than it would be in future. We note that the data provided suggests that the Sean contract was generally little used but in any event we take into account the decline in Centrica's other sources of flexibility below.

9.53 We also note the reduction in Centrica's domestic share of the retail gas market (Table 9) from 63.7 to 43.8 per cent. The domestic market is a major part of the flexibility requirement of a supplier. CE provided detailed calculations of its total share of market demand for winter flexibility, a key driver of which is its 43.8 per cent domestic market share. It presented data for a lower bound figure of 35 per cent but said that the right range was 35 to 40 per cent. Based on this, it said that it should be allowed to purchase 35 to 40 per cent of Minimum Rough Capacity because it should be able to spread its flexibility requirements fairly evenly across sources. Assuming that CE's share of demand for winter flexibility is 35 per cent, we do not believe a straight arithmetic read-across of that nature is justified (neither was it in 2003). First, it must be recognized that Centrica obtains more than its market share of other flexibility sources such as Morecambe.[162] Second, we are trying to establish what part of CE's share of flexible gas should come from Rough, in a situation where we have heard from all parties including Centrica that an operator will rely on a number of flexibility sources and domestic suppliers can access flexibility provided by Rough through trading as well as direct purchases from CSL (see paragraph 9.51); third, there are concerns of several parties (paragraphs 9.29 and 9.30) that there may be an adverse effect on liquidity in the secondary market if Centrica acquired more Rough capacity; further, the cap relates to Minimum Rough Capacity only and there are no restrictions on access to Incremental Capacity or Further Additional Space so CE's access to Rough as a source is greater than the cap (see paragraph 9.57 below). Based on Centrica's estimates that it accounted for 51 per cent of the market's total winter flexibility requirements in 2002/03, we also note that Centrica did not seek to acquire Rough capacity equivalent to that level when Rough was owned by Dynegy prior to the merger (when it was not a related undertaking) nor did Centrica argue in 2003 that it was appropriate to set the reservation at that level.[163] These factors do not suggest that a straight read-across from total share of winter flexibility requirements is appropriate. CE pointed to the fact that its other sources of flexibility had declined since 2003, which is considered further below.

[161]We note that [✂].
[162]We note that Centrica provided a chart that showed it anticipated a modest increase in available capacity at Morecambe between 2010/11 and 2014/15.
[163]Centrica told the CC in 2003 that it had used 25–31 per cent of Rough capacity in the previous five years. In 2003, the CC said that Centrica had a 63 per cent share of the domestic retail supply of gas.

9.54 Views expressed to us on the appropriate cap on the level of Minimum Rough Capacity that could be purchased by Centrica ranged from 15 per cent (the amount Centrica can presently reserve under the Undertakings) to CE's view that the cap should be 35 to 40 per cent. We note CSL's view that the cap should be commensurate with demand, given CE's domestic market share of 43.8 per cent; however, we attach less weight to CSL's views since it is the operator of Rough, and not a participant in the downstream market.

9.55 We also considered whether the reduction in Centrica's right to reserve capacity that was included in the Undertakings to stimulate investment should be reversed. We concluded that this consideration was not instructive. The Incremental Capacity that Centrica has added through investment has compensated for the specific reduction in the level of the reservation because CSL has already added at least the equivalent amount of capacity as that by which the reservation was reduced. Therefore we do not plan to increase the level of the capacity Centrica can purchase from CSL specifically to compensate for that reduction.

9.56 However, despite the above factors, we consider that the substantial reduction since 2003 in CE's legacy sources of flexible gas, detailed in paragraph 9.21, is a significant change to be taken into account in setting the level of the cap. The decline is set to continue, in particular in 2011/12 (after the Sean contract expires). We note that Centrica's comments related to capacity and not usage (in particular, the Sean contract was generally little used (see Appendix D), and Centrica has chosen to obtain flexibility from other sources rather than Rough) but we recognize that our findings have shown that many other sources of flexibility were not close substitutes for Rough. We consider that the decline in CE's own sources of flexibility means that, other things being equal, it is likely to need to acquire more of Rough's capacity than in 2003.

9.57 We weighed the factors discussed above. The task is to identify the amount of Rough capacity that Centrica would need to buy from CSL, were it independent, as part of its portfolio of flexible sources of gas (paragraph 9.47). We recognize that many of the factors detailed in paragraphs 9.50 to 9.56 suggest that the existing level of the cap may still be appropriate. However, we accept that Centrica's legacy sources of flexibility have declined substantially and consider that there is justification for an increase in the level of the cap on the amount of Minimum Rough Capacity that CE would be allowed to purchase in the Undertakings from its present level of 15 per cent. Balancing the factors above, and exercising our judgement, we have decided that an increase in the cap on the proportion of Minimum Rough Capacity that Centrica was allowed to purchase from CSL by up to an additional 10 per cent, ie from 15 to 25 per cent, would be reasonable. We would also allow Centrica, as it can now, to purchase up to 1,534 GWh of Additional Space. We would not place a limit on its access to Incremental Capacity or Further Additional Space, subject to the requirements of the TIEP and compliance with the remainder of the Undertakings. We note, based on figures provided by CE , that this gives CE the potential to purchase significantly more than 25 per cent of Rough capacity overall. CE's figures suggest that it would be able to purchase up to 33–34 per cent of total Rough capacity.[164] In addition, we note that it would continue to have 100 per cent of Morecambe output and rights to other flexible capacity.

[164]CE provided figures that showed that Rough was able to deliver an average of 251 GWh/day of Minimum Rough Capacity over the full 121-day winter period (ie 455 x 67/121). The figures also showed incremental deliverability of 32 GWh/day. Therefore overall these figures suggest that CE would be able to purchase up to ((0.25x251)+32)/(251+32) = 33.5 per cent of total Rough capacity.

9.58 We recognize the potential impact on trading in Rough-related products or the wider trading market of too great an increase in the amount of capacity that Centrica can purchase from CSL (paragraphs 9.43 to 9.46). We consider that setting the cap at the level proposed in paragraph 9.57 should not unduly impact the wider trading market, recognizing the concerns of some parties about the potential impact of Centrica acquiring more Rough capacity on liquidity in the secondary market. We also note that CSL suggested that related undertakings, such as CE, should be allowed to purchase capacity for resale in a way that added value, and that this activity should not be prohibited as long as there was no discrimination in the primary sales process. We believe that the Undertakings already provide for this as there is no requirement relating to the use to which capacity acquired is put.

Whether we should include an adjustment mechanism to vary the level of the cap to account for relevant changes

9.59 In paragraph 9.11, we discussed Ofgem's concern about the disadvantage of an inflexible cap being the need to fix the cap at a certain point in time. This could be addressed by including an adjustment mechanism.

9.60 In general, parties were in favour of including an adjustment mechanism for the cap (adjustable both ways), although some parties said that the CC should be responsible for the adjustment. We consider that it would be impractical for the CC to determine the level of the cap, as the only mechanism for achieving this would be through an Undertakings review similar to the present exercise and Ofgem would be the more appropriate body to review the level. CE agreed that a mechanistic adjustment formula was neither realistic or appropriate. It said that relevant factors were material changes in its requirements for flexible gas, significant changes in sources of Great Britain gas market flexibility and further material reductions in the sources of physical supply flexibility it held within its portfolio. Ofgem was in favour of having an adjustment mechanism and said that it should have the ability to consult the market about proposed changes in the underlying drivers for the cap. It considered that Centrica should be constrained in the frequency with which it could seek amendments, either time-related or related to the significance of the changes. Ofgem considered that a similar methodology to that used by the CC in reaching its provisional decision on the level of the cap on Minimum Rough Capacity could be used by Ofgem when reviewing and deciding on any adjustments to the cap level.

9.61 We decided to include an ability for Ofgem to approve an adjustment to the level of the cap on purchases of Minimum Rough Capacity following a consultation process determined by it. The cap would be adjustable in both directions and Ofgem would also be able to initiate a review of its level as well as Centrica. We recommend that Ofgem undertakes a significant consultation exercise when considering adjusting the level of the cap. We would not expect investment by CSL in other storage facilities to be a valid reason for reducing the amount of capacity that CE was entitled to purchase under the Undertakings, since that would risk discouraging investment in storage. We recognize that investment elsewhere to Rough would also be beneficial to the UK gas market and, in the same way that we would want to ensure the Undertakings do not discourage investment at Rough, we would not want the Undertakings to act to inhibit investment elsewhere.[165] There could also be an adjustment to the level of the cap on Additional Space.

9.62 We decided that Centrica should only be permitted to seek to adjust the level of the cap in the event that there has been a substantial change to the factors that affect

[165]However, we recognize that such investment would be subject to the requirements of the TIEP.

CE's requirement for flexible gas, or there had been a significant change in investments by others that resulted in the provision of services similar to those of Rough that had resulted in a substantial reduction in Rough's market power.

Potential problems in interaction

9.63 Centrica identified a few aspects where it considered that there would be problems in the interaction between the Undertakings and the TIEP. We considered those aspects to identify whether it was appropriate to make any variations to the Undertakings.

Zero reserve price auction and potential for gaming by customers

9.64 Centrica's concern related to the interaction between the requirements in Undertaking 3.4 (and Annex 2 to the Undertakings) and Article 19(2) of the Gas Regulation. Undertaking 3.4 requires CSL to sell all unsold Minimum Rough Capacity and Additional Space not less than 30 days before the start of the Storage Year in accordance with an auction procedure set out in Annex 2. Annex 2 specifies that the auction must be without a reserve price. Under Article 19(2) of the Gas Regulation, storage operators must make public information on contracted and available storage capacities on a regular and rolling basis.

Centrica's view

9.65 Centrica said that the increased transparency due to the requirements of Article 19(2), in combination with the market's awareness of the zero reserve price auction requirement in the Undertakings, left it exposed to gaming/distortion of the sales process by customers, essentially by customers holding off purchasing to seek to force a zero reserve price auction.

9.66 Centrica explained that to be effective in forcing CSL to hold a zero reserve price auction, the customer would typically need to collude with other customers to ensure that sufficient demand was withheld from the primary allocation process. In terms of the risks for customers in engaging in a strategy to force an auction, Centrica recognized that the risks associated with the holding off strategy were: first, the customer may not command sufficient buyer power to force an auction, and second, even if the customer had the ability to force an auction, the customer might not be able to ensure that the price was below fundamental value. Centrica recognized that under the current market conditions this would be difficult to achieve alone, hence the example it had in mind was [✂]. Centrica indicated that it understood that this nearly happened once [✂].

9.67 CSL created the potential for customers to remain anonymous but noted that there were only around [✂] gas shippers that traded gas at the NBP so the full customer base was relatively small. In Centrica's view, [✂] would have the potential to create an environment where a collusive strategy could be beneficial. CSL indicated that it had taken a number of steps to mitigate the risk of CSL being forced to go to the zero reserve price auction by increasing the commercial appeal of products and maximizing the customer base thereby increasing the risk to customers of attempting to game (such as developing new products and offering alternative pricing mechanisms to increase differentiation of the products with the aim of enhancing the value of products to customers; and thereby increasing the number of customers). CSL told us that it had never had to hold the auction procedure set out in Undertaking 3.4. Centrica considered that combining greater transparency under the TIEP with a zero reserve price auction might make CSL more vulnerable to this type of distortionary behaviour.

Ofgem's view

9.68 Ofgem indicated that it did not believe that buyer power had been an issue in the market to date. Ofgem indicated that this was a commercial issue rather than an issue of legal incompatibility. It said that, absent buyer power, an element of coordination would be required. It was not aware that such collusive conduct had been an issue to date and if it were pursued then other legislation would prohibit it.

Our assessment

9.69 Even with the additional transparency on the amount of capacity unsold, it seems that the risks, some of which Centrica identified, associated with this kind of strategy being pursued by an individual customer are so great as to cause the strategy not to be credible. Customers would have to enter into collusive behaviour, [✂]. There are few circumstances in which such conduct would not be a clear and serious infringement of UK and/or EU competition legislation and would leave participating companies exposed to serious penalties. This would appear to be a significant deterrent to this kind of behaviour. If Centrica had reasonable suspicions that such a strategy were ever being deployed, it would be well placed to approach Ofgem. Therefore, we do not consider that this presents a problem in interaction and do not propose to make amendments to the Undertakings on this aspect.

Transfer of the York field

9.70 As part of the Rough acquisition, CSL acquired a minority interest in the York field. Centrica has since acquired the entire interest and plans to develop it into a producing asset. Article 15(1) of the Gas Directive requires storage activities to be legally, organizationally and in terms of decision making separate from production facilities and CSL proposed to transfer ownership of the asset to another part of the Centrica group. It said that Undertaking 5.3(b), which provides that no member of the Centrica Group[166] shall acquire any assets of CSL other than in the ordinary course of business, operated to prevent the transfer. It confirmed that the transfer would be at a market price, meaning that no issue would arise under Undertaking 5.3(l).

9.71 Ofgem said that its view was that CSL's interest in the York field was likely to be inconsistent with the unbundling requirements of the TIEP. Ofgem's view was that Undertaking 5.3(b) was problematic to Centrica only in so far as it precluded it from transferring ownership of York field to another part of Centrica group via a process which could not be considered as an 'ordinary course of business'. However, a transfer of the asset conducted via an open and transparent process could potentially be considered as being consistent with the 'ordinary course of business' and therefore could be permitted under Undertaking 5.3(b).

Our assessment

9.72 We do not consider that this raises a problem between the separation provisions of the Undertakings and the TIEP. This is a narrow issue relating to the change in the proposed use of the York field. Given the change in intended use, we have not

[166] As defined in Undertaking 22.

identified any concerns around an intra-group sale of the asset at market price. On 14 March we consented to CSL transferring ownership of the York field at market value to Centrica Resources Limited (the operation of which is managed by the CE business unit) to ensure that Centrica is in a position to comply fully with the TIEP requirements on unbundling.[167]

10. Product innovation and sales mechanism

Product innovation

10.1 Centrica considered that the current Undertakings contained a number of restrictions that restricted CSL's ability to innovate and negatively affected future investment decisions. CSL said that in its view the Undertakings acted to the detriment of Centrica and consumers by placing unnecessary constraints on the innovation and development of services and products; and restrictions on CSL's ability to bundle Rough capacity with new storage facilities it was considering developing, which reduced and distorted investment incentives.

10.2 We recognize that the Undertakings were put in place a number of years ago and that there have been developments in the market since then, so we considered Centrica's submissions on these aspects to identify whether variations to the Undertakings were now appropriate.

Centrica's views

10.3 CSL identified a number of different aspects of the Undertakings it considered contributed to the adverse effects on product innovation and investment in other facilities:

(a) the requirement that Minimum Rough Capacity must be sold in SBUs;

(b) the requirement to retain the SSC for all sales of Rough Capacity and the procedure required for SSC amendments (Undertakings 2.3 and 2.4 and Annex 1);

(c) the operation of a zero reserve price auction to require sale of capacity before the Storage Year (Undertaking 3.4 and Annex 2); and

(d) the ability to use Rough Capacity[168] with capacity from other facilities.

The requirement to sell Minimum Rough Capacity in SBUs

10.4 The Undertakings require that all Minimum Rough Capacity be sold in SBUs. CSL is free to sell Additional Space and Incremental Capacity in formats other than SBUs. Article 15(2)(c) of the Gas Regulation provides that each SSO should offer to storage facility users both bundled and unbundled services of storage space, injectability and deliverability. Centrica suggested that the predefined SBU may limit CSL's ability to meet the requirement under Article 15(2)(c).

10.5 CSL explained that it had developed new products around the SBU but the majority of what it did was constrained by the requirement in the Undertakings to sell

[167] www.competition-commission.org.uk/inquiries/ref2010/centrica_review/pdf/110314_Final_Interim_Arrangement_Letter_unsigned.pdf.
[168] This is defined in the Undertakings as the overall capacity of Rough, comprising Minimum Rough Capacity, Additional Space, Further Additional Space to store gas at any one time, and Incremental Capacity.

Minimum Rough Capacity in SBU form and its ability to innovate was limited. CSL said that it continued to receive requests from customers which could not be satisfied under the current Undertakings. It was limited to using Incremental Capacity for non-SBU products. It indicated that if the Undertakings were lifted, it would look, over time, to sell fewer standard SBUs while developing new products. CSL said that customer requirements would drive any move away from standard SBUs and the development of new products would be in consultation with customers to ensure that they had commercial appeal and would gain regulatory approval. CSL anticipated that initially only a small proportion of Minimum Rough Capacity was likely to be sold in non-SBU form, but the demand for these products may increase as the market develops. It said that non-SBU products were readily available via traded markets but not from CSL.

10.6 CSL said that under the TIEP it would be a legal requirement for the storage operator to demonstrate that all available capacity had been released to the market. CSL said that it would still release all capacity to market, but in different shapes, more tailored to the requirements of customers. It said that under the requirements of the Network Code and the TIEP, the market would still be able to verify that gas was flowing out of the facility in an efficient manner, and there was no capacity hoarding.

10.7 With regard to concerns over the possible impact on the secondary market, CSL said that it would not expect gas in store, the main secondary market product traded, to be adversely affected by selling more Rough capacity in non-SBU form. It said that if non-SBU capacity better met customer demand, there may be less need for customers to buy gas in store. Customers would still need to fine-tune their holdings, and allowing Rough capacity to be sold in non-SBU form should not impact on their ability to do this. CSL said that it would continue to support the secondary market by ensuring that any contract would be transferrable by the primary market purchaser. CSL also said that the change would make little difference to market transparency, since the key elements of the product would still be injection, space and deliverability, and it would be apparent to the market if any of these were used less than expected, given market conditions on the day.

10.8 CSL agreed that Ofgem should determine any limits on capacity sold in non-SBU format consistent with its TPA Guidance. It did not believe that there was any need to set out such limits in advance—this would be difficult without seeing what customers wanted, and their concerns, and the CC should not seek to constrain Ofgem's ability to approve the amount of sales of non-SBU products as demand increased. However, CSL said that if the CC wished to set an initial limit, it suggested that a 20 per cent cap on non-SBU products (out of Minimum Rough Capacity) would be appropriate. CSL was concerned by the CC's recommendation to Ofgem in its provisional decision on variations that no more than a small minority of Minimum Rough Capacity should be sold in non-SBU form, and said that it should be determined by market demand. CE said that the development of non-SBU products should reflect market demand and the process should be transparent,with appropriate market consultation and reporting to Ofgem (to approve any change).

10.9 CE said that it would in principle favour a reasonable relaxation in the amount of Minimum Rough Capacity, which should be sold in SBU form but sufficient SBU-based sales should be retained to preserve an adequate degree of market transparency around the core product. It said it did not see that there should necessarily be a limitation to a small minority of Minimum Rough Capacity—the extent of non-SBU products should be driven by the extent of market interest. It said that innovation should be positive for the secondary market and there were potential gaps in the market, particularly for services with shorter withdrawal durations and faster storage injection rates than provided by the Rough SBU.

10.10 Ofgem noted that CSL had introduced a number of innovations by amending the SSC and by using Incremental Capacity. It noted that the requirement to sell the vast majority of capacity as SBUs had placed some constraints on CSL offering additional capacity as innovative products. However, it said it should be recognized that the restrictions on CSL's ability to market Rough capacity were put in place to provide customer assurance that capacity was being allocated on a non-discriminatory basis and changes needed to be weighed against the comfort these measures provided to the market. It said that standardization of products also supported secondary trading.

10.11 Ofgem recognized in its TPA Guidance consultation that Article 15(2) required SSOs to provide a mix of services. It indicated in its consultation that SSOs should be responsible for setting the appropriate level of consultation and market testing on the mix of services provided. It said that more extensive consultation would be required where an SSO had SMP and/or when the changes proposed were more significant. Ofgem indicated that, even with the existing SBU requirement in place, CSL should be able to comply with Article 15(2)(c) of the Gas Regulation, since CSL used Incremental Capacity to offer unbundled services.

10.12 Ofgem said that SBUs were a long-standing feature of the market and in its view any move away from SBUs should be based on strong market demand for different products which could be determined through an extensive consultation process. It had no general concerns with being responsible for administering an adjustment mechanism for the level of Minimum Rough Capacity CSL could sell in non-SBU form. Ofgem said that any changes in the mix of services offered should be based on an extensive, open and transparent consultation (or market testing) process. In the case of CSL, this mechanism could be similar to the arrangements currently in place for amendments to the SSC.[169] It said that there should be restrictions on the frequency with which CSL could seek amendments to the level of non-SBU capacity offered. Ofgem indicated that, if there was a significant move away from selling capacity as SBUs, it could make monitoring compliance more difficult and could also raise issues about the transparency of the allocation process.

10.13 Other parties' views were mixed. Some were cautious about the market impact but others favoured some non-SBU sales, based on demonstrated market demand. SSE was not aware of demand for further innovative Rough-related products beyond that provided by the market and said that no change was required. It said that CSL had not used all Incremental Capacity to date for non-SBU products and was concerned that allowing CSL to sell more Rough capacity in non-SBU form could have a detrimental impact on liquidity in the secondary trading market. It said that the CC should be responsible for considering any requests to vary the amount of non-SBU form Minimum Rough Capacity sold by CSL. EDF Energy said that moving away from SBUs may create problems in the wholesale market if non-SBU products could not be compared with SBU based products. Any products the market did not understand or know how to trade would effectively reduce the storage market until the market adapted to the products. It said that if the new contracts acted as long-term contracts they could foreclose the market, but equally, they could be genuinely innovative and benefit all shippers. EDF Energy said that to avoid bilateral sales processes inviting charges of discrimination all products should be placed on an exchange such as the APX. It said that the CC should be responsible for agreeing any variation. Statoil supported the proposal to create new and innovative products in principle. It said it was important that the Undertakings did not restrict product innovation unnecessarily. Statoil questioned how a limit on Centrica's capacity reservations in Rough would be measured if there were no standard SBU, especially if other products included the

[169] Set out in Annex 1 of the Rough Undertakings.

utilization of other facilities. It said that the impact on the secondary market was unclear but there was likely to be some demand for new products such as shorter-duration products. It said that Ofgem would have to consult on variations, and the level of non-SBU sales should be determined by market testing. Finally, [a trader] said that market requirements might change over time and CSL should be able to develop and offer new products it saw demand for, as long as these products were available to all market participants in a non-discriminatory manner. Presently it did not see any specific requirements for new products, but said that this might change.

Our assessment

10.14 A key advantage of requiring the SBU form is transparency for monitoring. The more varied and complicated the products CSL offers at Rough, the more difficult it is to monitor capacity is being allocated in a non-discriminatory way. Standardization also supports secondary trading. Under the Undertakings, CSL can sell Incremental Capacity in non-SBU formats and to date has not used all that capacity for non-SBU products. It has also to date not done extensive market research into the demand for different shaped products. We also recognize that the trading market allows products in non-SBU formats to be developed by third parties to meet customer demand.

10.15 If we considered that the SBU requirement was restricting innovation by CSL to meet genuine customer demand, particularly if the market was not providing equally innovative products, we would need to weigh the potential detriment against the transparency and other benefits and consider whether we should vary the Undertakings. Parties' responses suggested to us that there may be some value in allowing CSL to sell a proportion of Minimum Rough Capacity in non-SBU form, but the level of market demand is uncertain. The products that appear most likely to be of value are shorter-duration products. We see no reason why these types of products should not be available on the secondary market now if required by customers (albeit recognizing the limitations of the secondary market previously expressed). This does not mean that CSL should be prevented from selling these types of products, but it does mean that we should give more weight to the consideration of potential adverse impacts of making any change when considering such a variation.

10.16 We decided that CSL should be able to apply to Ofgem to sell some Minimum Rough Capacity in non-SBU form. Many of the concerns about the true demand for new products would be addressed with an appropriate consultation process. This would allow market participants to indicate whether they consider new products to be valuable and sufficiently innovative to justify allowing CSL to reduce the level of SBU capacity available. Ofgem's proposals for a consultation process similar to the arrangements presently in place for modifications to the SSC seem to us to be a suitable way of testing the extent to which there is demand for the new product. The appropriate process should be determined by Ofgem to ensure that it is shown to be impartial. Ofgem would determine whether it approved Centrica's request and would be able to make its approval subject to conditions, taking into account feedback from the consultation process (for example, the sales method; a requirement to use auctions for the sale of non-SBU products sold using Minimum Rough Capacity—paragraph 10.51).

10.17 We note the concerns raised by some parties about the impact on transparency if too great a proportion of Minimum Rough Capacity was sold in non-SBU form, or if the products were sold with the use of other storage facilities besides Rough. However, we would expect CSL to report, for non-SBU sales, the sales of each of the constituent elements (ie injectability, space and deliverability). We would expect the total sales of each element to be the same as the equivalent number of SBUs. In deciding whether to allow the new product, we would expect Ofgem to take into account not only customer responses over the value of a new product but also the impact of the change on transparency (paragraph10.14).

10.18 The amount of non-SBU products that CSL could sell would be determined by market demand and we do not wish to set a firm limit on the amount since the requirements of the market may change. However, we recommend to Ofgem that, when considering requests to vary the level of sales of products in non-SBU form, the impact on transparency should be a key factor that Ofgem would weigh alongside robust evidence of customer demand even more so the greater the proportion of capacity being offered in non-SBU form.

10.19 We also considered how the cap on the amount of Minimum Rough Capacity CSL could sell to CE would apply to sales of non-SBU products. We have decided (paragraph 9.57) that CE should be allowed to purchase up to 25 per cent of Minimum Rough Capacity. This would apply for SBU and non-SBU products. The cap should be applied to each of the component parts of non-SBU products (ie Centrica could purchase up to 25 per cent of each of the total injectability, space and deliverability sold as non-SBU products).

Use of Rough Capacity with other facilities

10.20 CSL said that combining new storage facilities with Rough would allow it to provide a range of flexible gas products that could 'more nimbly respond to patterns of demand'. It said that the ability to provide more flexible product offerings helped to reduce some of the uncertainties that were currently making the investment case for new facilities less attractive. CSL said that advantages of operating a portfolio model included the reduced risk resulting from customer storage contracts not being physically reliant on a single asset. It said that a key value driver would be the amount of additional capacity created from optimizing the physical operation of Rough in conjunction with other storage facilities. It said that only Incremental Capacity was presently available to combine with capacity from other storage facilities to create portfolio products.

10.21 Ofgem said that it had a concern that CSL if Centrica were to use the Caythorpe facility in conjunction with Rough to offer services that utilize the combined storage capacity of both facilities if Caythorpe was not subject to third party access requirements (the Caythorpe facility currently benefits from a Minor Facility Exemption).[170] This would make it difficult for Ofgem to determine compliance of Rough with the access requirements in the TIEP. It said that, where services were offered across a group of facilities, the whole portfolio of facilities should be subject to third party access requirements. It said that if new assets were treated in the same way as Incremental Capacity (subject to third party access requirements but not subject to the requirement to be offered as SBUs), then there should be scope for CSL to offer a range of services. Ofgem referred to comments from market participants on the impact on transparency if too great a proportion of Minimum Rough Capacity was sold in non-SBU form or products were sold in conjunction with use of other storage facilities besides Rough. Ofgem shared concerns that it may be increasingly difficult to monitor sales if CSL were to pursue multi-facility products.

[170]An exemption granted on the basis that TPA for the storage facility is not economically and/or technically necessary to provide efficient access to the system for the supply of customers.

Our assessment

10.22 We consider that currently Incremental Capacity and the process for making amendments to the SSC provides Centrica with the opportunity to use a proportion of Rough Capacity alongside other storage facilities. However, it is important that any portfolio model involving products that span a number of storage facilities should not operate to undermine the important safeguards set out in the Undertakings in relation to the sale of Rough Capacity and the operation of the Rough facility. We note that the size of Rough means that significant further storage facilities would have to be developed by Centrica for this to be a major consideration and note that, as these have not been developed to date, such an opportunity does not currently exist. In any event, to the extent that any provisions in the Undertakings operate to restrict portfolio opportunities, this needs to be weighed against the protection the Undertakings provide in relation to CSL's operation of Rough. We consider that there is a significant risk that, if Rough was operated together with other CSL facilities that were not subject to the Undertakings, this would reduce transparency substantially, with consequent risks to trading market liquidity and the ability to monitor Centrica's conduct under the Undertakings. We note, however, that currently this is speculative as these facilities have not yet received final investment decisions. We note that allowing Centrica to apply to sell some Minimum Rough Capacity in non-SBU form and to apply to use new contract forms for non-SBU products may facilitate the introduction of products combining capacity at Rough with other storage projects (see paragraphs 10.16 and 10.34).

The SSC—Undertakings 2.3 and 2.4

10.23 Undertaking 2.3 requires CSL to keep the SSC in place for all sales of Rough Capacity.[171] Undertaking 2.4 requires that the SSC cannot be altered unless market participants have been consulted in accordance with a procedure set out in Annex 1 to the Undertakings (including at least one month's consultation) and Ofgem agrees to the changes.

10.24 It is worth noting that under the TIEP, Centrica will be subject to certain minimum requirements in relation to its contracts. Article 33(3) of the Gas Directive provides that when developing the main commercial conditions for the use of storage, SSOs shall consult system users. Article 15.1(a) of the Gas Regulation provides that where an SSO offers the same service to different customers, it shall do so under equivalent contractual terms and conditions.

10.25 CSL said that the requirement in Undertaking 2.4(a) for Ofgem to agree to proposed changes to the SSC made the process of amending the SSC inflexible and time-consuming. CSL recognized that consultation was a requirement of both the Undertakings and the TIEP and that for substantive amendments to the SSC, a similar timescale to that prescribed by the Undertakings may well be appropriate. However, in its view, where CSL wished to introduce a new product to address a particular gap in the market which would not necessitate major changes to the SSC, then the prescriptive nature of the change provisions under the Undertakings may frustrate such innovation. It also considered that the requirement in Undertaking 2.3 that CSL must retain the SSC for all capacity sales may limit CSL's ability to meet customer demands. It said that the SSC was necessarily a complex contract as it must be capable of governing sales of bundled units of capacity over many years. However, where customers wished to purchase unbundled capacity over shorter

[171]We note that Ofgem has agreed that CSL may sell a product sold from Incremental Capacity, V-Store, using a contract which is not the SSC.

periods, it believed it should be permitted to devise simplified forms of contract. CSL said that the CC's proposal in its provisional decision on variations to provide for V Store and I Store specifically in the Undertakings was overly burdensome and unnecessary—new contracts unrelated to Minimum Rough Capacity should fall outside the Undertakings and be left to Ofgem to approve and monitor. It said that V Store and I Store products were derived from Incremental Capacity and capacity purchased by CSL from third party storage operators. It said that the Undertakings currently permitted Incremental Capacity to be reserved to Centrica. In its view, where Centrica made that capacity available to the market, as CSL would be required to do under the TIEP, it was not necessary or appropriate for the Undertakings to govern the nature or terms of the underlying contract. CSL noted that if Centrica elected to invest in new storage facilities rather than further Incremental Capacity at Rough, then the terms of those contracts would be subject only to the TIEP and this should be the case for all investment in Incremental Capacity at Rough.

10.26 Ofgem, in its consultation on its TPA Guidance, indicated that SSOs should be responsible for setting the level of consultation that was most appropriate when developing their main commercial conditions whilst setting out an expectation that more extensive consultation would take place where an SSO had SMP and/or when the changes proposed were more significant. It also indicated in the consultation that its preliminary view was that it did not need to approve the consultation process or the final form of the main commercial conditions for the purposes of the TIEP. Ofgem said that this was likely to reflect the position in its final guidance. Ofgem indicated that it expected that the requirement on SSOs to offer unbundled services (as well as bundled services) should result in SSOs being able to tailor services that meet the needs of customers (ie offer customers different combinations of injection, deliverability and space). It said that SSOs should generally be able to provide such unbundled services within the framework of a standard storage contract,[172] which specifies the main commercial conditions for the use of storage.

10.27 Ofgem was not aware of any difficulties with the prevailing approach to amending the SSC. It did not agree with Centrica's position that the procedure in Annex 1 of the Undertakings may frustrate innovations. It said that the requirement to consult the market was intended to mitigate the risk that CSL develop conditions that discriminate between facility users. Therefore, it considered the requirement to consult as fundamental to robust access arrangements. Ofgem said that Article 33 of the Gas Directive required SSOs to consult system users but there was no role for Ofgem to approve changes to the main commercial conditions under Article 33. In its view, the ability for Ofgem to approve changes to the SSC remained important and it provided comfort to the market that capacity was still being sold on a non-discriminatory basis, particularly given the untested nature of the access regime under the TIEP.

10.28 Ofgem said that the SSC was put in place after an extensive consultation process and any contract simplification should also be based on extensive market consultation in which all market participants were made aware of the consultation, were provided with sufficient time to respond (longer than the minimum 'calendar month' currently required in the Undertakings for changes to the SSC)[173] and where the criteria for assessing responses were clear and non-discriminatory. It had no general concerns with the proposal to allow Centrica to apply to Ofgem to approve new contracts for non-SBU products. It agreed that there may be instances where developing

[172]For Rough, this would be the Storage Services Contract (SSC).
[173]Set out in section 1.2 of Annex 1 to the Undertakings.

new sets of conditions may produce better solutions for customers seeking non-standard products.

10.29 Ofgem said that some standardization was also fundamental for secondary trading in that, if Centrica frequently amended commercial conditions, it was likely to make it difficult for customers to be able to sell unwanted capacity on the secondary market and more difficult for customers looking to purchase capacity on the secondary market to be able to compare services.

10.30 Views from other parties were mixed. Some were concerned about the possible administrative burden of a number of new contracts. SSE said that additional sets of commercial conditions may be disproportionately onerous for smaller players and may act as a barrier to liquidity if players had to to sign multiple contracts in advance of purchasing services. EDF Energy expressed concern that if CSL were to manage the consultation some market players may be reluctant to engage fully for confidentiality reasons. Statoil said that CSL should be able to consult on new contract conditions and it was important that the Undertakings did not restrict product innovation unnecessarily. It said that Ofgem should take a pragmatic approach. [A trader] said that the introduction of new contracts would be burdensome from a legal and administrative perspective. Most parties thought that Ofgem should give its approval to any amendment but one thought the CC should be responsible for approving the amendment.

Our assessment

10.31 In 2003, the CC considered a number of alternative remedies to ensure that non-discriminatory contract terms were offered, including whether CSL should be obliged to review the terms of the SSC regularly with all users and whether the development of multiple contracts would be desirable. However, the CC favoured a simple remedy (CSL should retain the current SSC indefinitely, and alter its terms only after consulting relevant parties and with the agreement of Ofgem) to ensure that the remedy is easy to monitor and not overly burdensome.[174] We consider that the consultation requirements for changes to the SSC and ex ante approval of changes by Ofgem remain important safeguards and note that Annex 1 allows Centrica to agree with Ofgem a shorter consultation period if appropriate.

10.32 However, we consider that if developing a new set of commercial conditions, rather than amending the SSC, produced a better solution for customers for non-SBU products, the Undertakings should accommodate this. The products likely to be of value appear to be shorter-duration products (paragraph 10.15) but it is not clear why the SSC could not be modified for that product. We also note that two parties were concerned about the administrative burden of multiple contracts. This means that a consultation process which clearly identifies the value of the new contracts is important. It will be important to ensure that appropriate consultation takes place on any new set of conditions and CSL would be required to get Ofgem's approval of the final version.

10.33 We think that the starting point for a new product should be the SSC, to consider whether that was adaptable to the new product, before a new contract is considered. We also think it important that the SSC should remain the default contract for products, and that when CSL is introducing a new product it should not be able to use a previously approved new contract for a different product without Ofgem specifically approving its use for the new product. However, we recognize that the 'one size fits

[174] 2003 report, paragraph 2.189.

all' approach of the SSC may not always be suitable for new products and new contracts may sometimes be required.

10.34 We decided to vary the Undertakings to allow Centrica to apply to Ofgem to introduce new contracts for non-SBU products. To avoid unnecessary administrative burden on market participants, we consider that Ofgem would also act as the initial filter and may decide not to permit the consultation process on a new contract where it decided that the proposed product was not sufficiently different and instead require a consultation on changes to the SSC. Ofgem would determine the appropriate consultation process for any proposed new contract and its approval of the final terms of any new contract would be required. We are also aware that CSL has agreed previously with Ofgem to use a different contract for V-Store, a product sold using Rough Incremental Capacity. The ability of CSL to use the V-Store contract for sales of that product will be specifically provided for under the Undertakings.[175]

10.35 As mentioned in paragraph 10.25, CSL said that in its view new contracts unrelated to Minimum Rough Capacity, such as contracts for products based on Incremental Capacity, should fall outside the Undertakings and be left for Ofgem to approve and monitor. It said that V Store and I Store products were derived from Incremental Capacity and capacity purchased by CSL from third party storage operators and pointed to the fact that currently the Undertakings allowed it to reserve Incremental Capacity. CSL noted that it currently made this capacity available to the market and would be required to do so under the TIEP but said that where it did so it would not be necessary or appropriate for the Undertakings to govern the underlying contract. It said that if it invested in new capacity elsewhere, only the TIEP requirements would apply and that the same should apply to Incremental Capacity at Rough. As discussed above, we propose to remove the right for Centrica to reserve Incremental Capacity but do not propose to place any limit on the level of purchases by Centrica of Incremental Capacity from CSL. We noted that Incremental Capacity would remain subject to the remaining requirements of the Undertakings, including provisions on use of contracts. We consider that the arrangements in the Undertakings relating to contracts should cover all forms of Rough Capacity (including Incremental Capacity, Additional Space and Further Additional Space), as Undertaking 2.3 would appear to provide. We consider that Ofgem final approval of any new forms of contract and involvement in determining the consultation process for developing new contract forms are important. Similarly, Ofgem involvement in the process for making changes to the SSC and final approval of changes to the SSC remain important safeguards. As explained above, such processes would not be required under the TIEP. Given the variation we have decided to make to provide scope for Centrica to apply to Ofgem to introduce new contract forms for non-SBU products, the Undertakings will provide an appropriately flexible framework for Centrica while ensuring that the basic protections for market participants in the Undertakings are not undermined. As noted above, we will specifically provide for Centrica's ability to use the V Store contract under the Undertakings and recognize that it may be appropriate to make specific provision for I Store.

Sales mechanism

Timing of sales

10.36 Centrica indicated that due to the requirement to run a zero reserve price auction for unsold Minimum Rough Capacity and Additional Space 30 days before the beginning of the Storage Year (Undertaking 3.4 and Annex 2), there was a de facto timing con-

[175] We also envisage that it may be appropriate to provide specifically under the Undertakings for a bespoke contract for I-Store.

straint on the sale of capacity. Centrica said that it was not always possible for customers to be ready to purchase capacity, or to have fully quantified requirements during CSL's normal sales period. CSL said that when demand was identified by customers (often due to supply/demand shocks), then historically it had only been able to satisfy this demand in very limited volume by using Incremental Capacity. Currently, CSL had to sell out Minimum Rough Capacity even where CSL 'perceives additional value' in making sales beyond April. It confirmed that [✂]. It said that if it had more flexibility, the proportion of Rough capacity CSL would hold back after the Storage Year would be driven by customer demand. It estimated that it would sell 10 to 20 per cent of Rough Capacity outside the Storage Year.

10.37 In Ofgem's view, the requirement that all remaining standard Rough capacity be sold before the start of the Storage Year provided a great deal of comfort and protection to the market. Ofgem indicated that it could have significant concerns if CSL were able to hold back capacity and offer it during the Storage Year. This could reduce liquidity as less Rough capacity would be traded, and would also increase the potential for discrimination. It considered that the ability to hold back capacity meant that there would be a risk that CSL could start to become a gas trader as opposed to a storage service provider, which could distort competition, as CSL would have more information about the operation of Rough than other traders. Ofgem indicated that the TIEP and the TPA Guidance was designed to address such issues. In its consultation on its TPA Guidance, Ofgem indicated that, in order to meet the requirements of Article 17(1), it would expect that the maximum available storage capacity be made available to market participants a sufficient amount of time before the Storage Year. However, in its view, the TPA Guidance had a far less certain outcome than a requirement to sell unsold capacity in a zero reserve price auction before the start of the Storage Year.

Our assessment

10.38 We consider that this remains an important safeguard to ensure non-discriminatory access to capacity. We also consider that, absent this requirement, there are concerns around the nature of the fundamental service offered at Rough changing in that CSL could use within Storage Year sales to act more as a gas trader than a provider of storage services. We note that the secondary market in Rough-related products should mean that a customer can access Rough capacity if it wishes to purchase Rough-related products during the Storage Year. Therefore, we have decided not to amend the basic requirement to auction unsold Minimum Rough Capacity and Additional Space 30 days before the start of the Storage Year.

Zero reserve price or a reserve price based on marginal costs?

10.39 We considered whether to make any change to the reserve price for auctions of unsold capacity.

10.40 CSL was concerned that an auction with a reserve price at short-run marginal costs could result in storage being sold to parties that valued it less than its intrinsic value, which would result in market distortions. It said that the role of a floor price should also be to ensure that, if storage was sold in units that did not meet market demand and which were therefore not fully valued by the market, there was an opportunity to redesign the product to a structure that the market valued. CSL said that the floor price could be set at intrinsic value (ie related to the Q1–summer spread) so that a buyer would fully value the intrinsic element even if it still meant storage being sold for less than its true value (ie with a significant extrinsic element). CSL said that if this was not acceptable, setting the floor price at marginal cost was slightly better than zero.

10.41 CE supported the principle of making unsold capacity available to the market on a basis which was likely to 'clear', but saw the logic for the reserve price being based on marginal costs rather than being set at zero. It said that it would not be economically efficient if CSL were obliged to sell capacity below the variable cost of delivering the service.

10.42 Ofgem said that if the CC decided that CSL could continue to use its current bilateral process for allocating all Minimum Rough Capacity and Additional Space, the requirement to auction unsold capacity (either with a reserve price of zero or set at the relevant marginal cost reference) before the start of the storage year should be retained. In its TPA Guidance consultation, Ofgem said that it would expect any market player with significant market power to set the reserve price for its standard storage services based on the relevant marginal cost reference. Ofgem's preliminary view in the consultation document was that short-run avoidable cost should be used for short-term services and long-run marginal cost should be used for long-term services.

10.43 SSE said that the existing zero cost reserve price should be maintained because Centrica had retained the significant market power it held in 2003. Statoil also favoured retaining the existing zero reserve price arrangement.

Our assessment

10.44 We note that there has been no case where CSL has had to undertake a zero reserve price auction in practice. Nevertheless we consider that the discipline of having a zero or marginal reserve price auction has helped to ensure that all capacity has been sold by CSL. We do not believe that having a reserve price set at intrinsic value would be as effective as the zero or marginal cost reserve and note that Centrica previously told us (paragraph 6.66) that intrinsic value represented a large majority of the value of an SBU. Setting the reserve price at this level is therefore unlikely to be as effective as the zero or marginal cost reserve.

10.45 However, even given that CSL has never had to undertake an auction for unsold capacity, we think there is justification for using the appropriate marginal cost reference for the reserve price rather than zero. This would mean that in the event of an auction, CSL would not have to sell the capacity at a loss (below variable cost). We have decided to set the reserve price at the appropriate marginal cost reference (short-run avoidable cost for short-term services and long-run marginal cost for long-term services). We would require CSL to provide Ofgem with any information it reasonably required to satisfy itself that the marginal cost reference used was reasonable.

Should the sales process take the form of an auction rather than bilateral sales?

10.46 We considered whether, if the limit on the amount of Rough capacity Centrica was able to purchase from CSL were increased and CSL were given greater flexibility to increase the range of products it offered, we should introduce a requirement that Rough capacity be sold by auction.

10.47 CSL said that customers valued bilateral sales arrangements rather than auctions in terms of negotiating deals when the customer was ready to buy and to facilitate hedging. It said that the transparency required could still be obtained through a bilateral process under the TPA Guidance.

10.48 CE said that while there were some price discovery advantages claimed for an auction process, in practice these were not material and there were disadvantages with auctions. In particular, the process was one-off compared with a continuous process which allowed capacity procurement to be spread over a longer period and better reflected changing market circumstances. It said that it was strongly against a mandatory auction requirement.

10.49 Ofgem considered that, as we had found that Rough had significant market power, auctioning the proportion of Minimum Rough Capacity and Additional Space that CSL sold as SBUs may be necessary to protect the interest of consumers and for CSL to be able to demonstrate compliance with TIEP requirements. It said that the use of auctions to allocate SBU-based services should mitigate the risk of capacity being withheld and/or discrimination in favour of related Undertakings or against third parties. It said that should CSL be permitted to offer a significant proportion of Rough's capacity as non-SBU products via a bilateral sales process, Ofgem considered that the requirement to auction unsold capacity before the start of the storage year was an important safeguard to ensure that CSL did not withhold capacity or discriminate when allocating capacity.

10.50 Other parties (Statoil, E.ON and [a trader]) were also in favour of maintaining the bilateral sales arrangements because of the need to be able to differentiate between the needs of customers, although [a trader] said that this should be subject to protections against non-discrimination. SSE referred to Ofgem's TPA Guidance and said that as the TIEP did not stipulate a requirement for a specific capacity allocation process it generally did not believe it was appropriate for Ofgem to introduce unnecessary requirements but said that Centrica's unique market position meant that an Undertaking which required CSL to use an auction-based primary allocation process may be appropriate.

Our assessment

10.51 We note that there seems to be general customer support for bilateral deals.[176] However, we also note that in its consultation on its TPA Guidance (paragraph 4.44) Ofgem has taken the preliminary view that, for any market player with significant market power, given the additional risks associated with demonstrating compliance with the Gas Regulation, it would generally expect such market players to use auctions to allocate standard services. We do not propose to introduce a requirement in the Undertakings for CSL to use auctions for sales of Rough Capacity. However, Ofgem may consider that auctions are more appropriate for certain new non-SBU products CSL wishes to introduce using Minimum Rough Capacity and Ofgem would have the ability to make such a requirement a condition of its approval of use of Minimum Rough Capacity for non-SBU products.

11. Separation and information provisions

11.1 Centrica claimed that some of the rules relating to separation of CSL from the wider Centrica group raised practical difficulties due to their prescriptive nature. We have reached the view that the Undertakings, including those on separation, remain important to meet our concerns. Nevertheless, we recognize that the Undertakings

[176] We note that SSE, which questioned whether an auction may be appropriate, is not a direct customer of Rough.

have now been in operation for a number of years, and have considered Centrica's submissions to identify whether any changes to the Undertakings would be appropriate to make their practical operation smoother.

Shared services

11.2 Undertaking 5.3(e) and Annex 4 of the Undertakings provide that no member of the Centrica Group (or its employees, directors, agents or Affiliates) shall enter into or carry out any agreement or arrangement for the provision of services to CSL, save for as specified in Undertaking 5.3(e) and Annex 4. Undertaking 5.3(e)(bb) provides that, in relation to certain services that could be provided by Centrica wider group to CSL (legal, regulatory, company secretarial, human resources, and business assurance services, each as described in Annex 4, Part A), individuals engaged in providing the above services to CSL must not be involved in providing any such services to other members of the Centrica Group which from time to time carry on gas supply, shipping, trading, storage procurement activities or asset operations.

11.3 Centrica indicated that where the Undertakings expressly permitted services to be provided to CSL, they did so by reference to named functions. For example, Group Security was not permitted to provide services to CSL. CSL was not clear on whether this position was intended by the Undertakings or whether, for example, it arose because there was no Group Security function when the Undertakings were given in 2003. Centrica gave as an example a situation where CSL was subject to fraudulent activity. Due to the absence of access to the Group Security function, it would have to procure relevant expertise on the contractor market (with associated costs). CSL said that we should prescribe only the services CSL was not permitted to receive. If this was not acceptable, CSL said that the CC should give thought to 'baselining' the services in the amended Undertakings so that they align with the title or structure of relevant Group services. It also said that defining the services more comprehensively by their nature rather than by reference to the Group function which currently provides the service would be a more robust approach and ought to minimize the scope of future changes so that Ofgem approval would only be required for genuinely new services.

11.4 In relation to ring-fencing of individuals providing certain services to CSL, Centrica explained that ring-fencing functions over and above the information protection provisions led to practical difficulties. It provided as an example that CSL used one sole ring-fenced member of the Secretariat, and where this person was unavailable due to leave, CSL was unable to use secretariat services unless Centrica removed someone from their current role and ring-fenced them. It explained that a quarantine requirement of four weeks was applied in order reasonably to 'desensitize' any 'commercially sensitive information'[177] to which the individual may have been privy. In Centrica's view, given the requirement to protect commercially sensitive information in Undertaking 6, it was unclear why these functions were ring-fenced over others. Centrica considered that the requirement to protect commercially sensitive information of CSL had proved effective in other permitted service areas, which arguably were privy to information of heightened sensitivity compared with that to which, for example, Human Resources may be privy. CSL said that it did not believe there was a convincing case for employees providing company secretarial or human resources support to be ring-fenced since absent ring-fencing such individuals are in any event required to be Designated Persons and are restricted from using such Commercially Sensitive Information for purposes other than the provision of advice to CSL and from disclosing the information more widely.

[177] See Undertaking 6.3 for definition.

11.5 Parties did not have a general concern about the variation in the provisional decision on variations to allow Ofgem to approve new services Centrica could provide to CSL. SSE thought the CC should approve the variation, in cases where the service was outside the scope of those specified in the Undertakings. EDF Energy was concerned to make sure that the variation would not allow bypassing of the Undertakings. Ofgem said that it may need to reserve the right to revoke any such change and to seek advice from external parties to ensure that the proposed changes did not present a risk to Centrica's compliance with the Undertakings.

Our assessment

11.6 It remains important to restrict the ability of the wider Centrica group to provide services to CSL. It would not be appropriate to define only those services Centrica wider group cannot provide to CSL as there would be a risk of not being comprehensive or not legislating for future services that may become relevant. However, we recognize that new group functions may develop or functions may be renamed over time. Therefore, we have decided to amend the provision to include an ability for Centrica to apply to Ofgem for it to approve new services to be included in Undertaking 5.3(e). This provides appropriate flexibility. Ofgem would have scope to consult on the changes and revoke any approval if required. We also propose, in formulating the variations to the Undertakings, to consider the appropriateness of updating the existing descriptions of services in the Undertakings. New services can be considered via the new Ofgem approval procedure envisaged by our variation.

11.7 Given the nature of the services provided, we are not persuaded that the ring-fencing of individuals involved in company secretarial services envisaged in the Undertakings is no longer appropriate. Therefore, we do not propose to amend the Undertakings on this point. We understand the ring-fencing of HR personnel is of limited practical significance as CSL has a dedicated HR team; however, we do not see the same sensitivities in this area as with company secretarial and will vary the Undertakings to remove the the ring-fencing of HR personnel unless the consultation process on the form of the variation highlights any concerns around this variation.

Information transfer between CSL and Centrica Group

11.8 Undertaking 5.3(d) provides that:

> Save as agreed by Ofgem, and without prejudice to para 5.3(e) (iv) a*n*d 5.3(i) of [the Undertakings], no other member of the Centrica Group or the agents or Affiliates of any such member, or its employees or directors, shall directly or indirectly participate in the formulation or making of, or influence or attempt to influence, the commercial policy of CSL other than through responses to formal public consultation.

11.9 Undertaking 6 prevents the flow of 'commercially sensitive information' from CSL to the wider Centrica group engaged in gas supply, shipping, trading storage procurement activities or asset operations. 'Commercially sensitive information' is defined in Undertaking 6.3(b) as including operational information relating to the Rough or Easington facilities, which includes information relating to storage capacity, gas-in-storage, Gross Nominations, and the day-to-day operation and maintenance of Rough and Easington.

11.10 Centrica argued that CSL's input into Centrica's new storage projects could benefit from having access to 'wider energy market fundamentals', where Centrica possessed expertise. Centrica explained that as Undertaking 5.3(d) meant that CSL may only have that information to the extent that it was not capable of influencing CSL's commercial policy, this resulted in CSL possibly taking an 'excessively cautious' approach to information from the Centrica Group. CSL had requested a definition of commercial policy from Ofgem but Ofgem was unable to provide it. CSL believed that the current form of Undertaking 5.3(d) led to inefficiencies through potential missed opportunities to benefit from synergies with Centrica Group, and thus the most efficient operation of Rough and the new storage projects. It said that the CC's proposal of consulting Ofgem if it was in doubt that information influenced commercial policy was not practical as Ofgem was unable to provide a definition.

11.11 Centrica considered that Undertaking 6.3(b) raised practical difficulties. It explained that up until recently CSL processed gas from the Amethyst field through the Easington terminal on behalf of a subsidiary of BP. It said that this arrangement had now terminated and Centrica was assessing the use of the Amethyst facilities to bring York gas onshore and process it for delivery to the NTS. It said that if a third party were developing York, CSL would provide that party with certain technical information about the operation of its terminal at Easington, subject to confidentiality Undertakings, to enable that party to assess the viability of the export route. However, Centrica explained that in its view even though such information would not provide a third party with any commercial advantage in relation to CSL's storage operations, the provision of such information to another company in the Centrica group was likely to be prohibited by Undertaking 6.3(b). It said that it had also been unable to provide certain health and safety information on another occasion.

11.12 CE supported the proposal in our Variations Notice to allow CSL to seek Ofgem's consent to transfer Commercially Sensitive Information[178] to other members of the Centrica Group and suggested that there may be some cases where the current restrictions imposed additional cost and inconvenience which were not matched by the benefit. CSL said that the CC should consider implementing a time period within which Ofgem may either give its consent or veto.

11.13 Ofgem said that it would not be concerned if Undertaking 6 was amended to allow CSL to apply to it regarding the sharing of Commercially Sensitive Information but such requests should only be made in exceptional circumstances, and it should retain the ability to impose requirements on such information-sharing arrangements (eg limiting the time frame for sharing the information, placing limitations on the number and the roles and responsibilities of the staff who have access to the information).

11.14 EDF Energy said that the provisions on flows of Commercially Sensitive Information were the central protection for the market and ultimately consumers. It said that it would be difficult to imagine an information request where the rest of Centrica's storage customers would not need similar information. SSE considered that the existing Undertakings should not be amended. Statoil agreed that the information provision clauses were key to the nature of the Undertakings, but Ofgem should be able to permit variations in certain circumstances. It said that as an overriding principle it should be incumbent on CSL in each case to demonstrate why such a variation was thought necessary and that it would provide no commercial advantage to the Centrica Group.

[178] As defined in Undertaking 6.3.

Our assessment

11.15 A very important element of the Undertakings is that CSL should operate separately from the wider Centrica group and therefore it is important that Undertaking 5.3(d) is not undermined. It is not practical to expressly provide for all scenarios where Centrica may wish to transfer information to CSL in the Undertakings. If Centrica itself is in any doubt as to whether information it wishes to provide to CSL is capable of influencing CSL's commercial policy, we consider it appropriate that Ofgem be consulted. This does not equate to seeking a general definition from Ofgem of commercial policy; rather, in the cases where Centrica considers there is a risk that information it wishes to transfer may influence CSL commercial policy, it would seek to obtain confirmation from Ofgem whether it was happy for transfer to take place in that specific case, subject to any conditions or requirements Ofgem considered appropriate. We are aware this kind of consultation has taken place in the past. Undertaking 5.3(d) has a proviso 'Save as agreed by Ofgem' and CSL has made use of this in the past by seeking agreement from Ofgem to the exchange of certain information from Centrica wider group to CSL for CSL to assess new storage projects and to put investment proposals to the Centrica board. Ofgem gave permission for the exchange subject to certain conditions. Therefore, we do not consider that any amendment to Undertaking 5.3(d) is required.

11.16 In relation to flow of information from CSL to Centrica, Undertaking 6 is a fundamental protection. The situation Centrica raised is a narrow situation where it may be appropriate for information to be transferred.

11.17 We will include a proviso to allow CSL to seek Ofgem's consent, by way of exception, to transfer certain operational information relating to the Rough or Easington facilities, which are included in the definition of Commercially Sensitive Information in Undertaking 6.3 (eg specific technical information where a safety issue common to the group arose), to other members of the Centrica Group which from time to time carry on gas supply, shipping, trading, storage procurement activities or asset operations. Ofgem would have the ability to make its consent subject to conditions.

11.18 We note the comments of other parties that they consider the information provisions to be an important protection. We would expect such requests from Centrica to be exceptional as we consider it would be very rare that it would be appropriate for CSL to share information with Centrica without sharing it with other market participants. Centrica welcomed this proposal and acknowledged that such requests would be exceptional. We also note the comments from Ofgem that it would be concerned to make sure that the transfer of information was strictly necessary and only the personnel that needed to know would have access to the information. We consider this to be necessary to ensure that even in such exceptional circumstances only essential information is transferred in a limited fashion and to a limited number of personnel.

11.19 We consider that the suggestion by CSL, that Ofgem should have to approve or disapprove a request within a certain period, is impractical. The request needs to be properly assessed by Ofgem. However, we appreciate that there may be commercial imperatives that require a request to be processed rapidly and expect that Ofgem would be sensitive to this in its consideration of the request.

Code of conduct requirements.

11.20 Centrica also said that Undertaking 6.2 required that staff and all members of the Centrica Group were bound by a code a conduct which prohibited the disclosure and solicitation of Commercially Sensitive Information. It said that the Centrica Group had changed significantly since the Undertakings were entered into, for example with a much larger presence in the USA. The obligation to ensure that all employees were bound by the code of conduct was much more onerous than it was and in its view not proportionate. CSL said that a more proportionate approach would be to ensure that staff bound by the code of conduct were limited to the businesses of the Centrica Group where there was a credible risk of disclosure, ie those involved in gas supply, shipping, trading, storage procurement activities or asset operations in the UK, but excluding Centrica's businesses overseas and UK businesses not involved in related activities such as British Gas Services and Dyno. Centrica said that it used a risk-based approach to briefing employees on, and auditing compliance with, the code. This approach focused on CSL, CE and other business (including some outsourced business where there was the highest risk arising from non compliance).

Our assessment

11.21 We considered Centrica's point concerning unrelated Group businesses and overseas subsidiaries (paragraph 11.20). We consider that the pragmatic risk-based approach that Centrica adopts appears to focus compliance efforts on those areas where it is most appropriate and is a sensible solution to interpreting the Undertaking requirements proportionately. To provide for carve-outs in the Undertakings risks omission or overinclusion and may create difficulties if employees transfer between business units or interact with other business units. Therefore, we do not intend to change this aspect of the Undertakings.

Gross nominations data

11.22 Undertaking 13 imposes on CSL an obligation to publish Gross Nominations data at least four times a day.

11.23 CSL said that the publication of this information identified to the market what was required from the facility, while real-time withdrawal flow data (which is published on NG's website and is a code requirement) showed how the facility was progressing towards that goal. It said that in 2003 there was no visibility of physical flows and therefore gross nominations gave an approximation of the requirements of customers on the asset. It said that in 2006, with the introduction of real time flows, the market gained sight of the real time physical flows into the network, significantly improving flow transparency. It said that, by combining these two information sources, in a situation where, for example, Rough was experiencing operational difficulties, the market could see the extent to which those difficulties were impacting flows, and by virtue of the aggregate nomination publication required by Undertaking 13, could calculate CSL's exposure (given its obligation to customers to 'hold whole' (ie meet in full) customer nominations, absent a force majeure event).

11.24 Ofgem indicated that it understood that CSL may be concerned about being placed in a 'distressed buyer' situation. In its view, it did not consider that Centrica had put forward a strong case to demonstrate the materiality of this concern and thought the argument was somewhat at odds with CSL/Centrica's assertion that the Great Britain gas market for flexible gas supplies was highly liquid.

11.25 Other parties were in favour of this information continuing to be provided. CE told us that the Gross Nominations published by CSL sent an important signal to market players around how long or short the gas system was and served to trigger other portfolio actions on the part of market participants; thus it also made an indirect contribution to efficient market functioning and ultimately to gas supply security. SSE said that Undertaking 13 should remain unaltered. Due to the scale of Rough, wholesale gas prices could be influenced by the volume of gas either injected or withdrawn from Rough. The current publication of Gross Nominations data four times a day allowed players to gauge more accurately the level of system balancing and forecast within day prices. EDF Energy said that the publication of storage information, and in particular nominations, was an important signal to the market in terms of its assessment of supply during the gas day. It said that market publications such as Heren showed how the information was used. It said that a large number of retail contracts were based on the Heren index and in part this information provided buyers with confidence in the market.

Our assessment

11.26 We note that all parties besides CSL saw significant value in the publication of this data and we will continue to require it to be published in the same form as currently.

12. Summary of the variations to the Undertakings

Capacity

12.1 We have decided to remove Undertaking 15 thereby removing the restriction on Centrica taking part in the Primary Sales Process. We have also decided to remove Undertakings 3.1, 3.2 and 3.3 relating to reservation of capacity to Centrica and replace those with a mechanism that places a limit on the amount of capacity at Rough that Centrica is able to purchase from CSL. This would not guarantee that Centrica will receive the maximum level of capacity, rather it would have to participate in the non-discriminatory allocation processes adopted by CSL. Centrica will be able to purchase up to 25 per cent of Minimum Rough Capacity plus 1,534 GWh of Additional Space from CSL. There will be no cap on purchases of Incremental Capacity and Further Additional Space. In all cases it would need to participate in the non-discriminatory allocation process adopted by CSL and comply with the TIEP requirements and the remainder of the Undertakings.

12.2 The cap on Minimum Rough Capacity will be capable of being varied in both directions. The level of the cap should only be adjusted in the event that there has been a substantial change to the factors that affect CE's requirement for flexible gas or there has been a significant change in investments by others that resulted in the provision of services similar to those of Rough that had resulted in a substantial reduction in Rough's market power. Ofgem would decide whether to approve a change in the level of the cap and determine the consultation process to obtain market views on whether the cap should be varied. There could also be an adjustment to the cap on Additional Space.

Non-SBU products and contracts

12.3 CSL will be able to apply to Ofgem to be able to sell a proportion of Minimum Rough Capacity in non-SBU form. Ofgem would determine the appropriate consultation process and would have the ability to make its approval subject to conditions. In addition to its present reports to Ofgem, we would expect CSL to report, for non-SBU sales, the sales of each of the constituent elements of the product (ie injectability, space and deliverability), in a similar format and for the same time frames as it presently reports sales of SBUs. We do not wish to set a limit for the maximum amount of non-SBU capacity that may be sold, since market requirements may change. However, we recommend to Ofgem that when considering requests to vary the level of sales of non-SBU form products in addition to seeking robust evidence of customer demand it should also weigh the impact of the change on transparency.

12.4 CSL would be able to apply to Ofgem to use a new set of commercial conditions rather than make a change to the SSC for sale of non-SBU products. The consultation process would be determined by Ofgem. We would expect the consultation period to be longer than the minimum 'calendar month' currently required in the Undertakings for changes to the SSC. Ofgem would approve the final form of any new contract. When CSL is introducing a new product, it would not be able to use a previously approved new contract for a different product without Ofgem specifically approving its use for the new product.

Sales mechanism

12.5 Annex 2 will be amended to provide that the auction of unsold capacity required by Undertaking 3.4 be subject to a marginal cost reference reserve price as opposed to a zero reserve price (in line with Ofgem's preliminary view in its consultation on its TPA Guidance of using short-run avoidable cost for short-term services and long-run marginal cost for long-term services).

Other

12.6 Undertaking 5.3(e) will be amended so that Centrica can apply to Ofgem to approve new services for inclusion in 5.3(e) as services Centrica Group can provide to CSL.

12.7 Undertaking 6 will be amended to include a proviso to allow CSL to seek Ofgem's consent, by way of exception, to transfer certain operational information relating to the Rough or Easington facilities, which are included in the definition of Commercially Sensitive Information in Undertaking 6 (eg specific technical information where a safety issue common to the group arose) to other members of the Centrica Group which from time to time carry on gas supply, shipping, trading, storage procurement activities or asset operations. Such requests would only be made in exceptional circumstances. Ofgem would have the ability to make its consent subject to conditions.

13. Assessment of proportionality of the varied Undertakings

13.1 The CC seeks to ensure that no remedy is disproportionate in relation to the scale of the competition problem and its adverse effect. Our approach is to adopt the least costly remedy we consider effective.

13.2 It is important in a review for change of circumstances to consider the context in which proportionality is to be assessed. The Undertakings were put in place in 2003 to address the adverse effects of a merger. In 2003, the CC considered that the Undertakings were a necessary and measured response to those adverse effects and were subsequently adopted by the Secretary of State. More onerous alternative remedies, such as divestment, were considered by the CC and rejected. In imposing behavioural remedies as an alternative to divestment, the CC's practice is to ensure that the package of measures imposed is robust: that the package is fully effective against the adverse effects identified. The Undertakings have been in operation for a number of years and no concerns have been raised with us in relation to their operation to date. At no point prior to the introduction of the TIEP has Centrica put to the CC that the Undertakings were disproportionate to their objectives or that a lesser package of remedies was sufficient to remedy the adverse effects of the merger.

13.3 In this review, we have considered the impact of two changes in circumstance. We have concluded that market changes identified by Centrica have not removed the need for the Undertakings because Rough still has significant market power and retains the ability to discriminate to the disadvantage of downstream competitors. We have then considered the significance of the TIEP. The TIEP and the Undertakings are both measures designed to address the problem of third party access to gas storage facilities; and they are both a package of remedies in that they both include provisions that are mutually supporting and that can serve more than one objective of the overall package. As such, we have assessed the respective merits of the Undertakings and the TIEP as packages. Any other approach would be artificial. Having assessed the extent to which the TIEP remedies the effects of the merger, we concluded that the TIEP was not a sufficiently effective package of measures compared with the Undertakings for the specific concerns identified in relation to Rough. This is not surprising because the TIEP is not a maximum harmonization package of Regulations and Directives and was not designed with the specific adverse effects of Centrica's ownership of Rough in mind. We recognize that the TIEP is an important package of EU measures. Consequently we have considered whether, notwithstanding these considerations, the advantages of the Undertakings must be set aside because the burden is disproportionate when considered alongside the TIEP. We also observe that it is rare in merger cases that the CC will consider that a less effective remedy should be given effect. We would need to be satisfied that there was a truly robust justification for believing that the Undertakings were disproportionate to persuade us that it was appropriate to rely on an alternative package of measures we did not consider to be fully effective.

13.4 We have approached proportionality in two ways. First, we have considered whether the overall package of Undertakings is disproportionate to the concerns we seek to remedy. Second, recognizing that if the Undertakings are retained there will be only one compliance task for Centrica, because compliance with the Undertakings will satisfy the TIEP requirements where they overlap, we have considered whether the incremental costs, direct and economic, of the Undertakings are disproportionate to the additional benefit of the Undertakings taken as a whole. We recognize that the ultimate detriment to end-users of gas is significant if the remedy imposed on Centrica does not operate to address fully the adverse effects of the merger.

13.5 In relation to the first approach, our review has not identified any reason to think that the remedy imposed in 2003 was disproportionate. Nor has Centrica claimed that it was. We have concluded that market changes have not removed the adverse effects identified in 2003 and that the TIEP does not fully meet those adverse effects. The Undertakings are a necessary and measured response to those adverse effects. In relation to the second question, we consider below both direct and economic costs and weigh both against the full scope of the Undertakings. We conclude that the overall costs, direct and economic, of continuing the Undertakings are likely to be small in relation to the potential detriment that would be avoided.

13.6 Despite our view that the Undertakings, even absent variations, remain proportionate, we explored Centrica's submissions on adverse consequences and practical difficulties arising from the Undertakings and have considered whether there is scope to reduce the burden. We also consider below the variations we have decided to implement and their impact on Centrica and the proportionality aspects of the variations we do not propose to pursue.

Direct costs considered against detriment avoided

13.7 In 2003, the CC considered that the consequences of the merger (set out in paragraphs 3.7 and 3.9 of this report) would have the effect that competition would be weakened in the markets for flexible gas and domestic gas supply and that it was likely that the ultimate effect would be higher prices for end-users of gas than would otherwise apply. It also considered that innovation and investment in Rough would be lower than would otherwise be the case.

13.8 As noted in Section 8, we do not consider that the TIEP provides sufficient protection to meet our concerns and thereby avoid the detriment described in paragraph 13.7. Therefore, we have considered the likely magnitude of the incremental costs for Centrica in operating under the Undertakings over and above the TIEP requirements to consider whether the costs would be disproportionate.

13.9 Centrica assessed the incremental costs to it of complying with the Undertakings over and above the TIEP requirements. It estimated that the aggregate net cost savings it would avoid absent the Undertakings would be in the region of £[✂] a year, from cost savings due to no longer using an external firm to audit compliance with the Undertakings and greater use of Centrica group services.[179] Centrica said that it had not done a comprehensive review of the cost savings that could be achieved but indicated that at present CSL had its own support functions and Centrica would expect this to remain largely the case.

13.10 The Undertakings require Centrica to maintain physical separation of CSL in a separate building. Centrica said that it did not envisage locating its storage business in a single premise with wider group activities. It said that it would need to weigh carefully the benefit of resultant cost savings against the cultural changes to the existing CSL business and the potential impact on CSL's business that might arise should its customers perceive a lessening of independence.

13.11 We decided in paragraphs 7.4 to 7.16 that without the Undertakings Centrica remains in a position to favour its own trading and supply operations and disadvantage competitors. We note in this context that the cost of £[✂] is low compared with the value of products sold by Rough (it amounts to approximately [✂]p/therm) and the profitability of Rough. There may also be other potential impacts on the gas trading market, which would mean that this cost was proportionately lower still.

13.12 In terms of direct costs, we consider that the Undertakings, particularly with the variations listed below that we have decided to implement, are no more onerous than required for them to be substantially effective. The independence of audit and the physical separation is important to providing confidence to industry parties that CSL is being operated separately from Centrica.[180] The restrictions on shared services between CSL and Centrica wider group also play a role in market confidence in separation as well as contributing to the effectiveness of the basic separation requirement.

13.13 We consider that the following variations we have decided to pursue will also operate to reduce the direct cost burden on Centrica from having to comply with the Undertakings:

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[179] Centrica indicated that there were some areas such as IS and HR where it might be possible to move certain activities carried out currently within CSL to Centrica Group, thereby achieving economies of scale. The Code of Conduct requires a Centrica supply-side compliance manager and Centrica does not consider that there is such a requirement under the TIEP so the cost of that position could be avoided (although Centrica may choose to retain some level of compliance oversight on the supply side).

[180] We note that Undertaking 17 does not in any event explicitly require an independent audit. It requires that the Centrica Audit Committee conduct an internal review on a quarterly basis and provide a report to the board on an annual basis (on which the board produces a report thereon and provides both to Ofgem). The Centrica Audit Committee must comprise solely independent non-executive directors. In 2003, the CC considered whether to impose a requirement for an independent audit but considered that imposing an obligation on the non-executive directors would require them to satisfy themselves that the requirements had been met and they would be best placed to decide whether independent audit is required.

(a) amend Undertaking 5.3(e) to include an ability for Centrica to apply to Ofgem to approve new services to be included in 5.3(e), as services the Centrica Group can provide to CSL (paragraph 11.6); and

(b) include a proviso to allow CSL to seek Ofgem's consent to transfer by way of exception, certain operational information relating to the Rough or Easington facilities, which are included in the definition of Commercially Sensitive Information in Undertaking 6 (eg specific technical information where a safety issue common to the group arose), to other members of the Centrica Group which from time to time carry on gas supply, shipping, trading, storage procurement activities or asset operations (paragraph 11.17)

Economic costs

13.14 We also considered the economic costs identified by Centrica of the Undertakings and considered whether we needed to vary the Undertakings if the economic costs were significant. There appeared to be two potential economic costs, concerning product innovation and the use of multiple storage facilities.

13.15 Centrica considered that the Undertakings prevented it from developing new products. CSL considered that, absent the restrictions requiring it to sell Minimum Rough Capacity in SBU form, the requirement to retain the SSC for all sales of Rough Capacity and the requirement to operate a zero price auction for unsold capacity before the start of the storage year (paragraph 10.3) it would be able to optimize its product portfolio to maximize total capacity.

13.16 We noted in paragraph 10.44 that there has been no case where CSL has had to undertake a zero reserve price auction in practice. We considered it relevant that the discipline of having a zero or marginal cost auction had helped ensure that CSL has sold all capacity. However, as discussed in paragraph 10.45, we have decided to replace the zero price auction for unsold capacity with the use of an appropriate marginal cost reference to ensure that CSL would have to sell capacity at a loss.

Product innovation

13.17 We considered whether CSL should be able to sell some Minimum Rough Capacity in non-SBU form and to be able to develop new forms of contract instead of the SSC for new products. The standard SBU product contributes substantially to trading market liquidity and is therefore a substantial benefit. However, we decided that there may be economic benefits where CSL was able to sell some Minimum Rough Capacity in non-SBU form, but we would require the demand for such products to be clearly demonstrated to ensure that the benefits outweighed the loss of other benefits related to the SBU, particularly transparency for customers. Therefore we decided (paragraph 10.16) that Ofgem should be able to agree for CSL to sell a proportion of Minimum Rough Capacity in non-SBU form, subject to extensive market testing demonstrating a strong requirement for the product and subject to the requirement to maintain market transparency—thus providing a framework to ensure that the right solution is delivered for the market.

13.18 In relation to the requirement to use the SSC for sales of Rough capacity, we sought views from market participants and Ofgem. Having considered those views, we decided that, while maintaining the SSC for sale of standard products and requiring Centrica to obtain Ofgem's approval for any changes remained important safeguards, if a new set of commercial conditions was a better solution for non-standard products the Undertakings should accommodate this. The variation we have proposed, which allows Centrica to develop new contracts but envisages a process of market consultation and Ofgem oversight, balances the advantages of increased flexibility for Centrica and its customers in the contracts CSL can offer against the interests of customers in transparency and a proportionate administrative burden.

Use of multiple storage facilities

13.19 Centrica also said that the Undertakings prevented it from using Rough capacity alongside new storage projects. We note that these facilities have not yet been built so this is speculative.[181] Also while recognizing that there would likely be some benefits to Centrica from an ability to reduce risk through a portfolio model, any restrictions on the use of Rough would have to be weighed against the protection the Undertakings provide. It is not yet possible to assess properly the opportunities a portfolio model may provide or the extent to which the Undertakings constrain that approach. Allowing Centrica to apply to sell more capacity in non-SBU form may facilitate the introduction of products combining capacity at Rough with other storage projects.

Revised level of the cap

13.20 We also considered any adverse economic impacts relating to the introduction of our alternative mechanism for capping Centrica's purchases of Rough capacity. We considered that a cap should not be applied to Incremental Capacity, in order to ensure that, to the extent that further investment in Rough was considered by CSL, it would continue to be encouraged under the Undertakings.

13.21 In exercising our judgement, we considered that an increase in the cap on the proportion of Minimum Rough Capacity that Centrica was allowed to purchase from CSL by up to an additional 10 per cent, ie from 15 to 25 per cent, would be reasonable, having taken the relevant considerations into account. In determining the amount of Minimum Rough Capacity Centrica should be able to purchase from CSL (paragraph 9.57), we decided that it was important to consider the impact on the trading market of any change to the cap. We did not consider that the adjustment proposed would result in adverse effects on the trading market. We also decided that the cap should be flexible, and intend to allow Ofgem the ability to vary the level of the cap subject to significant changes in either Centrica's sources of flexibility or market changes, thus providing an efficient means to address changes going forward.

Variations we have decided not to adopt

13.22 The variations we have decided not to make to the Undertakings are primarily:

(a) the sales mechanism; and

(b) the requirement to publish Gross Nominations data four times a day.

13.23 In paragraph 10.51, we considered whether to specify that an auction procedure should be used for the sale of Minimum Rough Capacity rather than bilateral agreements. However, parties generally appeared to be in favour of bilateral negotiations so this variation was not pursued, which means that there is no change in the obligations on Centrica.

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[181]We note that Centrica has decided to postpone investment decisions on storage development at Caythorpe, Bains and Baird (see paragraph 3.21).

13.24 In paragraph 11.26, we noted that, although CSL said that customers should not need to continue to receive Gross Nominations data, customers strongly argued for continuing to receive this information. Therefore we considered it necessary and proportionate to continue to require this information to be published. CSL has indicated that the cost of providing this data was negligible. CSL identified potential economic costs to it of the market's visibility that it was in a distressed buying position. We have weighed this against the benefits to the market from the availability of this information and do not consider that an adequate case has been made for changes to the existing arrangements.

Conclusion on proportionality

13.25 We assessed both direct and economic costs and weighed both against the benefits arising from the Undertakings. We consider that the overall costs (direct and economic) of continuing the Undertakings were likely to be small in relation to the potential detriment that would be avoided. We consider that the Undertakings, even without the variations we have decided to make, remain proportionate to the adverse effects that are likely to arise in the absence of the Undertakings. Nevertheless, we assessed Centrica's submissions in relation to adverse effects or practical difficulties arising from the Undertakings and assessed the scope to reduce the economic and direct costs further. In several areas, we are proposing variations that will reduce the burden on Centrica. We consider that the Undertakings, including the variations we have decided to implement, are proportionate to the adverse effects that are likely to arise in the absence of the Undertakings. When drafting the variations, we will have due regard to the need to ensure that there is as much clarity and coherence as possible between Centrica's obligations under the Undertakings and the obligations placed on Centrica by the TIEP requirements in the equivalent area, to seek to reduce Centrica's compliance task.

14. Conclusions

14.1 We considered whether the changes of circumstance identified by the OFT have led to sufficient change in the competitive environment identified in the 2003 report or the operation and effect of the Undertakings such that they should be released, varied or superseded. Taking into account all the evidence we have seen, we are not persuaded that the Undertakings should be released, varied or superseded because of changes in market conditions. We also considered whether it was likely that the aspects of harm that the CC identified in 2003 may still be expected to occur in the light of any change of circumstances and we will no longer include a remedy in the Undertakings to address the concern identified in 2003 in relation to Centrica's incentives to invest in Rough. In relation to each of the other harms, we find that in some cases there had been no real change in circumstances and that in others there had been insufficient change to remove the potential for abuse identified in the 2003 report. We concluded that the TIEP does not remove the need for the Undertakings.

14.2 However, we decided to make a number of variations to the Undertakings. To align the Undertakings more closely with the scheme of the TIEP, we have changed the mechanism for effectively capping Centrica's purchases of Rough capacity from CSL. We also decided, taking into account relevant changes since 2003, to increase the limit on the amount of Minimum Rough Capacity Centrica is allowed to purchase from CSL to 25 per cent, but have incorporated a mechanism for this level to be adjusted up or down in future.

14.3 Other variations relate to product innovation. These introduce greater flexibility within the Undertakings but incorporate procedures that ensure that appropriate consultation takes place, with oversight of the process by Ofgem, so that the key protections in the Undertakings are not undermined. Centrica is able to apply to Ofgem for approval of the sale of some Minimum Rough Capacity in non-SBU form and new contract forms for non-SBU products where market demand exists. The remaining variations relate to aspects of the separation and information provisions. Ofgem is able to approve new services Centrica can provide to CSL and approve the transfer, by way of exception, of certain operational information, which is included in the definition of Commercially Sensitive Information in the Undertakings, from CSL to Centrica.

14.4 We consider that we are in a position to conclude on our assessment at this stage, recognizing that it may be appropriate to make certain adjustments when implementing the variations identified in this report to reflect the detail of the DECC implementation measures for the TIEP.