

**Centrica's completed acquisition of
Dynergy Storage Limited and Dynergy
Onshore Processing UK Limited**

A consultation paper

December 2002

Summary

This document invites respondents to comment on the possible impacts on competition or on Ofgem's regulatory activities of Centrica's completed acquisition of Dynegy Storage Limited and Dynegy Onshore Processing UK Limited, and on Ofgem's initial views of the transaction. Ofgem will make recommendations to the Director General of Fair Trading (DGFT) in relation to the acquisition. In order to allow comments to be considered, Ofgem needs to receive these not later than 5 pm on Wednesday 11 December, 2002.

Based on preliminary analysis, it is Ofgem's initial view that Centrica's purchase might be expected to lead to a lessening of competition. Ofgem's initial view is that the transaction represents a substantial lessening of competition, but Ofgem has not come to an initial view as to whether, or how, the impacts on competition associated with this transaction might be fully remedied. If, in light of more detailed analysis and the responses to this consultation process, Ofgem concludes that the impacts of the transaction on competition cannot be fully remedied by undertakings proposed by Centrica, Ofgem would advise the DGFT that the transaction be referred to the Competition Commission.

Alternatively, should Centrica offer undertakings which, in light of further analysis and the results of this consultation exercise, would remedy fully all of the competition detriments identified, Ofgem would expect to advise the DGFT accordingly. At this stage, it is Ofgem's initial view that, were it to prove possible to agree undertakings that fully remedied the detriments to competition, these would go deeper and wider than those agreed with Dynegy to address the competition detriments resulting from its purchase of Hornsea and Rough in 2001.

Ofgem will consider responses to this consultation exercise, as well as the results of its ongoing analysis of the transaction, in developing its advice to the DGFT.

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1. Introduction

1.1. This document:

- ◆ gives details of Centrica's acquisition of the Rough gas storage field and Easington processing facility;
- ◆ explains the merger control process for this transaction; and
- ◆ invites comments on any competition and regulatory issues arising from the transaction.

1.2. Ofgem will make recommendations to the Director General of Fair Trading (DGFT) in relation to the transaction. In order to allow respondents' comments to be taken into account, Ofgem needs to receive these not later than 5pm on Wednesday 11 December, 2002.

2. Details of the acquisition

- 2.1. Centrica completed and announced the purchase of Dynegy Storage Limited and Dynegy Onshore Processing Limited on 14 November, 2002 for £304m plus £11.8m in respect of net working capital. The main assets of these companies are the Rough storage field and the Easington gas processing facility.
- 2.2. The Rough storage field is a depleted natural gas reservoir converted for use as a storage facility, and provides around 85% (by volume of gas stored) of all gas storage in Great Britain. The services provided by the Rough field are described in chapter five below.

3. Merger Control Process

- 3.1 This transaction falls within the scope of UK merger control law because the value of the assets purchased exceeds £70m and the transaction does not have a European Community dimension.¹ The transaction will therefore be assessed under the provisions of the Fair Trading Act 1973.
- 3.2 It is the responsibility of the Office of Fair Trading (OFT), headed by the DGFT, to advise the Secretary of State for Trade and Industry whether a transaction should be referred to the Competition Commission. In accordance with the concordat between the OFT and Ofgem, the OFT will consult Ofgem before advising the Secretary of State. Where the OFT advises that the transaction should be referred to the Competition Commission, the OFT may, in lieu of such a reference, advise that the Secretary of State invites binding undertakings from the parties to the transaction which would fully remedy any adverse effects on competition identified by the OFT.
- 3.3 If the Secretary of State decides to refer the transaction to the Competition Commission, the Competition Commission has to consider whether the transaction operates, or is likely to operate, against the public interest. If the Competition Commission finds in favour of the transaction, the Secretary of State must clear the transaction. However, if the Competition Commission makes an adverse finding, the Secretary of State may (but does not have to) take remedial action.
- 3.4 Ofgem has already indicated that it intends to conduct a general review of the competitiveness of the gas storage market, and its ongoing regulation, in 2003. This review will take into account any conclusions reached by the competition authorities in examining Centrica's purchase of the Rough storage facility.

¹ The European Commission has sole jurisdiction over mergers having a Community dimension, as defined in the European Community Merger Regulation (Regulation 4064/89).

4. Details of the parties²

Centrica

4.1. Centrica is a customer services company with significant energy interests. Its principal energy businesses in the UK include the following activities.

- ◆ **Upstream interests**—through Hydrocarbon Resources Ltd and Centrica Resources Ltd, Centrica owns gas resources that include the North and South Morecambe gas fields. Centrica owns both producing and undeveloped fields in the North Sea and the East Irish Sea, close to Centrica's Morecambe operation. The Morecambe fields currently supply round 7–8% of the UK's peak gas demand, and Centrica aims to source around 20% of its gas requirements from its own sources.
- ◆ **Electricity and gas trading**—through Accord Energy, Centrica is involved in the trading of electricity and gas in the wholesale and forward markets. Accord traded between one and two times the total volume of energy supplied to Centrica's downstream customers in the first half of 2002.
- ◆ **Gas shipping**—through its two licensed wholly-owned subsidiaries British Gas Trading Ltd and Accord Energy Ltd, Centrica flowed about 32% of all gas going through the National Transmission System in 2001/02 (Transco figure supplied by Centrica).
- ◆ **Gas supply**—Centrica supplies gas to about 65% of domestic customers, as well as to around 380,000 commercial customers. Centrica supplies significant volumes of gas to large industrial users, including power stations.
- ◆ **Electricity generation**—through outright ownership or equity stakes, Centrica has about 1.7 GW of generating capacity, and generates around 10 TWh/year.

² unless otherwise stated, details have been provided by the parties.

- ◆ **Electricity supply**—Centrica supplies electricity to around 22% of domestic customers as well as to around 500,000 commercial customer supply points.
- 4.2. Centrica also retails a range of central heating products and provides maintenance services for domestic appliances. It is involved in fixed and mobile telecommunications, under the One.Tel and British Gas Communications brands. It also owns the AA and provides various financial services through its Goldfish brand.

Dynegy

- 4.3. Dynegy Storage Limited and Dynegy Onshore Processing Limited were owned by Dynegy Europe Ltd. Dynegy has recently sold its subsidiary that owned the Hornsea gas storage facility to Scottish and Southern Energy (SSE).³
- 4.4. Dynegy is an energy merchant, power generator, and energy trader in North America, UK and continental Europe, but has recently announced restructuring plans and a managed exit from its marketing and trading businesses, as well as all of its European businesses. The company is based in Houston, USA.
- 4.5. Dynegy UK Ltd and a subsidiary hold two gas shipper licences. In the financial year to March 2002, Dynegy shipped gas equivalent to less than 1.5% of the total Great Britain volume.

³ The Secretary of State's decision not to refer SSE's acquisition of Hornsea to the Competition Commission was announced on 28 November, 2002.

5. The Rough gas storage facility

- 5.1. The size of gas storage facilities is generally defined by three parameters:
- ◆ the rate at which gas can be injected into a gas storage facility ('injectability');
 - ◆ the rate at which gas can be withdrawn from the facility ('deliverability'); and
 - ◆ space—ie, the total amount of gas that the facility can hold when full.
- 5.2. Related operational and commercial features that stem from these characteristics are the minimum time that it takes to fill a site from empty (ie, space divided by injectability), and the length of time that the site could discharge at maximum deliverability from fully charged (ie, space divided by deliverability—this is referred to as the site 'duration'). The duration of the Rough storage facility is such that its very significant deliverability could, in principle, be sustained for 67 days. These features give an indication of the volume of storage services that the operator of the facility can provide to its customers.
- 5.3. Other significant characteristics are:
- ◆ location, which may, for example, allow a facility to be used to relieve constraints in the transportation system; and
 - ◆ lead times for injection and withdrawal, which determine how quickly the operation of a facility can be adjusted in response to customer requirements (lead times for a particular facility can vary according to the standby state of the facility).
- 5.4. The Rough facility is a depleted gas field off the Yorkshire coast. It is by far the largest gas storage facility in Great Britain, being capable of meeting over 10% of current peak day demand, with a delivery rate that could, in principle, be sustained for more than two months. Table 1 gives key parameters for the Rough storage facility.

Table 1: The Rough storage facility

space (GWh)	deliverability (GWh/d)	injectability (GWh/d)	withdrawal lead times (hours)	injection lead times (hours)
30,344	455	160	2 to 12	2 to 12

The regulatory framework

- 5.5. Neither the operation nor the ownership of gas storage facilities are licensed activities under the Gas Act 1986.
- 5.6. All storage facilities are subject to European regulatory requirements regarding third party access. Sections 19B and 19C of the Gas Act and section 17 of the Petroleum Act 1998 give Ofgem powers to consider applications made by storage owners for exemption from certain provisions in the legislation regarding Third Party Access (TPA) requirements introduced by European Community legislation.
- 5.7. None of the previous owners has applied for an exemption in respect of Rough and the relevant provisions of the legislation relating to TPA therefore apply.
- 5.8. General competition law applies to gas storage businesses. The Competition Act 1998 prohibits anti-competitive agreements and abuse of a dominant position. Chapter I prohibits agreements between undertakings, decisions by associations of undertakings, or concerted practices which have the object or effect of preventing, restricting or distorting competition in the United Kingdom and which may affect trade in the United Kingdom. Chapter II prohibits conduct by one or more undertakings, which amounts to the abuse of a dominant position in a market in the United Kingdom, which may affect trade in the United Kingdom. Ofgem has concurrent powers with the DGFT under the Competition Act, and has the power to impose financial penalties of up to 10 per cent of UK turnover for up to three years from any infringement on companies found to be infringing the prohibitions of the Competition Act. In relation to these concurrent powers, Ofgem works in conjunction with the OFT as set out in the OFT Guideline Concurrent Application to Regulated Industries.

- 5.9. Since Rough is an off-shore gas field, its operator requires a gas production licence from the DTI.

Dynegy's undertakings

- 5.10. An additional form of regulation covering the ownership and operation of Rough has been the set of undertakings given by Dynegy to the Secretary of State in lieu of a reference to the Competition Commission at the time that it purchased Rough (together with the Hornsea storage facility) in 2001. These are binding undertakings (on which, for example, third parties can take court action under the Fair Trading Act 1973 in the event of the undertakings being breached).
- 5.11. Dynegy's undertakings replaced assurances given by BG plc to Ofgem to cover its operation of Rough (and Hornsea) over the period 1999–2004, and covered the part of this period remaining when Dynegy purchased the sites from BG. These assurances were put in place following a detailed investigation into the market for gas storage and related activities carried out by Ofgas in 1998. The review identified a number of short- to medium-term issues that needed to be addressed in order to facilitate the transition to a more competitive market and allow deregulation of storage prices. The assurances given by BG avoided a reference by Ofgas to the Monopolies and Mergers Commission. However, they did not have the statutory force of the undertakings given by Dynegy to the Secretary of State in lieu of a reference to the Competition Commission (successor to the Monopolies and Mergers Commission).
- 5.12. The Secretary of State's decision on Dynegy's purchase had been informed by advice from Ofgem, including the results of an Ofgem consultation process regarding Dynegy's purchase of the storage facilities. This exercise indicated a number of areas where respondents agreed with Ofgem's initial conclusion that undertakings similar to BG's were still required. In particular, respondents agreed that the maximum physical capacity should continue to be made available on non-discriminatory terms, and that there should be a robust separation between Dynegy's storage and trading activities. In Dynegy's undertakings to the Secretary of State, therefore:
- ◆ the definition of the maximum physical capacity at each facility remained unchanged from that agreed to by BG;

- ◆ the obligation to offer the maximum physical capacity on non-discriminatory terms remained unchanged ;
- ◆ there was an obligation to produce an auctions procedure document, a standard storage services contract and a future operations statement, as required of BG previously;
- ◆ Dynegy could only change the terms of either the auctions procedure or the standard storage services contract with the consent of the Secretary of State (similarly, BG was only able to change the terms with Ofgas consent);
- ◆ as Dynegy's storage business would be in possession of market sensitive information regarding storage customers' injection and withdrawal patterns, the storage business, like BG Storage before it, could trade gas for operational purposes only; and
- ◆ as with BG, there was an obligation on Dynegy to maintain a robust financial and informational separation between its storage business and the rest of Dynegy's trading activities. This was to prevent Dynegy's trading activities benefiting from privileged access to market sensitive information.

5.13. An additional requirement that respondents felt was required was in the provision of one-year storage rights to help to safeguard the ability of new entrants to the gas market to secure storage capacity rights. Thus, the undertakings placed an additional obligation on Dynegy to offer 20% of the capacity at Rough on a one-year basis (either through bilateral sales or any subsequent auctions).

5.14. Dynegy's undertakings do not apply to the new owners of Rough (or Hornsea). In its consultation paper on SSE's purchase of Hornsea, Ofgem indicated that its initial view was that the new owner of Hornsea should undertake to operate the facility in a manner consistent with the Dynegy undertakings, but that the transaction did not raise substantial competition concerns. SSE has now agreed that it will make available the site's full capacity, and that it will maintain confidentiality of information by means of separation. Ofgem's advice to the

OFT was that SSE's purchase did not raise competition concerns and that statutory undertakings would therefore not be required (note that, as discussed below, there are many differences between SSE's purchase of Hornsea and Centrica's purchase of Rough). Ofgem did, however, make clear that it intends to carry out a review of storage and related services during 2003.

6. Gas storage—assessing competition issues

Framework of analysis

- 6.1. Access to gas storage provides a means of managing exposure to fluctuations in gas supply and demand levels, and exposure to movements in gas prices. On the demand side, these fluctuations include those associated with average seasonal variations (with average winter demand significantly higher than average summer demand), and those generated by more extreme conditions (with 'severe' winter demand significantly higher than average winter demand). In addition to these factors, the potential for substantial changes (relative to forecasts) in levels of demand both between and within days can give rise to significant value being placed on the capability for short notice flexibility in gas supply. On the supply side, plant failures and unplanned outages can give rise to significant fluctuations in available quantities, sometimes at very short notice.
- 6.2. Access to gas storage provides a means of matching supply and demand given these sources of fluctuation, but is only one of several mechanisms by which such matching takes place. Alternative means of matching supply and demand in response to fluctuations are therefore substitutes for access to storage, and have the potential to constrain the commercial behaviour of a storage operator (eg, the prices it charges), including an operator of the Rough facility. However, the extent to which alternative sources of flexibility allowing supply and demand to be matched are close substitutes to the services provided by gas storage in general (or by Rough in particular), and hence the extent to which they can be expected to constrain the commercial behaviour of the operator of the Rough facility, will depend on a number of factors including lead times, the possible duration of the response, likely incremental costs of capacity in the short and long terms, and more general considerations of the economics of operating the alternative sources.
- 6.3. An assessment of the likely impact of Centrica's purchase of the Rough facility on competition requires a consideration of these factors, and in particular the extent to which the transaction could weaken competitive pressures in terms of the provision of substitute sources of supply and demand flexibility.

Furthermore, it is necessary to give detailed consideration to the effects that a weakening of competitive pressures in terms of the provision of substitute sources of supply and demand response capability could have on competition in related activities (including gas supply, electricity generation and electricity supply).⁴

6.4. Ofgem's approach to assessing this transaction builds on analysis that has been carried out by Ofgem and others in the past. In particular, issues relevant to this transaction have been considered in:

- ◆ the 1993 Monopolies and Mergers Commission investigation into British Gas plc (including subsequent work on the separation of the British Gas storage business from its trading businesses);⁵
- ◆ the 1997 Monopolies and Mergers Commission investigation into BG plc;⁶
- ◆ Ofgem's 1998 review of gas storage and related services;⁷
- ◆ Dynegy's purchase of Rough and Hornsea in 2001;⁸ and
- ◆ SSE's purchase of Hornsea in October 2002.⁹

6.5. Ofgem is in the process of updating and extending the analysis of gas storage and related services that it has carried out in the past.

6.6. The initial stages of this process have included:

- ◆ examining measures of the long- and short-term potential for supply and demand responses to high gas demand and/or price levels;

⁴ possible impacts in related markets are discussed in chapter 7.

⁵ "Gas and British Gas plc", Reports under the Gas and Fair Trading Acts, Monopolies and Mergers Commission, 1993, and "Separation of British Gas Transportation and Storage business from its trading businesses", Ofgas, 1994

⁶ "BG plc", Monopolies and Mergers Commission, 1997

⁷ "Review of the supply of gas storage and related services, the Director General's Initial Proposals", Ofgas, July 1998

⁸ "Dynegy's proposed acquisition of BG Storage Ltd, A consultation paper", Ofgem, October 2001

⁹ "SSE Energy Supply Ltd's completed acquisition of Dynegy Hornsea Ltd's gas storage facilities", Ofgem, October 2002

- ◆ examining measures of short-term flexibility by considering the potential for both day-to-day and within-day supply and demand responses;
- ◆ assessing the shares of alternative sources of supply and demand response, and relevant short-term response capabilities held by different parties, examining both asset ownership and contractual positions held over different time periods; and
- ◆ assessing incentives for and barriers to new entry or capacity expansion in relation to alternative sources of supply and demand response.

6.7. A central feature of this type of analysis is the need to consider the potential for supply and demand responses at different levels of system throughput, in different time periods, and with different time lags. In line with this, attention is being given to assessing the impact of the transaction on competition acting as an effective constraint on the commercial actions of potential suppliers of supply and demand responses, given these different dimensions.

6.8. Subsequent analysis will further update and develop the assessment of possible substitutes to Rough developed in the 1998 Ofgas review of the supply of storage and related services. This work will include examining evidence on the relative prices and utilisation of different types of storage services and other alternative forms of gas supply and demand response observed since the 1998 review. This latter analysis will inform the assessment of the extent to which different sources of supply and demand response can be expected to constrain commercial behaviour, and of the extent to which the transaction is likely to affect those constraints.

Substitutes for services provided by Rough

6.9. The following paragraphs give a brief discussion of both possible supply and demand-side substitutes to services provided by Rough, and relevant entry/expansion conditions. As noted above, Ofgem is in the process of examining these issues in further detail.

6.10. Ofgem considers that the following are sources of flexibility that could be substitutes for the services provided by Rough:

- ◆ other gas storage facilities;
- ◆ beach swing;
- ◆ the Bacton interconnector; and
- ◆ interruptible supply contracts.

Other gas storage facilities

6.11. There are currently nine major gas storage sites in Great Britain. In addition to the Rough facility, Hornsea and the five liquefied natural gas (LNG) facilities were originally owned and operated by British Gas plc. The ownership of Rough and Hornsea was then transferred to BG Storage Ltd (a ring-fenced subsidiary within the BG Group), and, following the de-merger of BG plc in December 2000, became fully separate from the LNG facilities. In November 2001, Dynegy purchased BG Storage Ltd. SSE purchased the Hornsea site from Dynegy in October 2002. The remainder of existing storage capacity consists of new entrants: Scottish Power's storage site at Hatfield Moor, and the Electricité de France Trading (EdFT) site at Hole House.

6.12. Some of the key operational characteristics of these sites are shown in table 2 below, together with the equivalent details for the Rough facility. As can be seen, Rough is substantially larger than other existing sites in terms of space, deliverability, and hence duration. The duration of Rough is significantly greater than that of the LNG facilities. Whilst the combined deliverability of the five LNG sites is very substantial (812 GWh/d), this level could only be sustained for five days. By comparison, Rough could, in principle, discharge at full deliverability for 67 days. This difference, together with the fact that the LNG injection process is considerably more costly and less flexible than that at Rough gives rise to very different usage patterns.

6.13. The commercial usage of LNG is also complicated by the extensive usage that Transco makes of these facilities, with approximately 30% of available LNG space booked for operating margins, and significant bookings made at

Glenmavis for use (via tanker service) to serve the Scottish Independent Undertakings. In addition to these storage bookings, Transco constrains the usage of two of sites—Avonmouth and Isle of Grain—in order to avoid transportation constraints arising in particular parts of the network during periods of very high demand.

- 6.14. The duration of Hornsea, Hatfield Moor and Hole House is greater than that of LNG, but is still considerably less than that of Rough. Considerable attention is typically paid to the short-notice flexibility of these sites, and the value that this flexibility can provide for the management of end-of-day balancing positions.
- 6.15. In addition to these existing sites, there are several other storage projects that have been proposed, including proposals by Intergen, Scottish Power and Star Energy. If undertaken, these developments could result in a substantial addition of gas storage capacity (although, were all the proposals to be undertaken, the additional capacity would be significantly less than that provided by Rough). Ofgem is not aware of any plans to develop additional storage capacity likely to be comparable to Rough (eg, through the use of another partially-depleted gas field). Experience with new storage developments also indicates that it can take a considerable period of time to develop new sites, and that developments can be subject to planning delays.

Table 2: Existing gas storage facilities

Existing Storage facilities	Owner	Space (GWh)	Deliverability (GWh/d)
Rough	Centrica	30,344	455
Hornsea	SSE Energy	3,495	195
<i>Sub-total</i>		<i>33,839</i>	<i>650</i>
Avonmouth LNG	Transco	827	165
Dynevor Arms LNG	Transco	276	55
Glenmavis LNG	Transco	551	110
Isle of Grain LNG	Transco	1,213	243
Partington LNG	Transco	1,195	239
<i>Sub-Total</i>		<i>4,062</i>	<i>812</i>
Hatfield Moor	Scottish Power	1,260	55
Hole House	EdFT	821	29
<i>Sub-Total</i>		<i>2,081</i>	<i>84</i>
<i>TOTAL</i>		<i>39,982</i>	<i>1,546</i>

Beach swing

- 6.16. The potential to increase supplies of gas from beach terminals at times of high demand and/or price provides a possible substitute for the flexibility services provided by storage sites. The potential flexibility that could be provided by beach swing is difficult to determine. However, an indication can be gained from examining variations in observed beach flows. For example, the difference between peak and annual average aggregate flows at the six largest terminals (excluding the Bacton interconnector and Rough storage flows) over the past two years has been approximately 1,000 GWh/d.
- 6.17. An indication of shorter term response capabilities can be gained by examining day-to-day changes in flow levels. While there have been some significant recorded daily flow increases at specific terminals, it is notable that the largest daily change in aggregate beach flows from the six largest terminals in each of the last 2 years has been between 350 and 400 GWh/d.

- 6.18. It is notable that Transco's forecasts of future beach supply availability indicate that the profile of available supplies is likely to be 'flattening' over time (ie, with reduced swing capabilities).

Bacton interconnector

- 6.19. The Bacton interconnector provides a particularly significant source of potential flexibility, and the extremes of its operational capabilities imply a swing potential of 899 GWh/d (that is, the difference between its export capability of 628 GWh/d and its import capability of 271 GWh/d). However, for consistency with the discussion of beach swing above, it is also useful to examine observed usage levels. The difference between peak import and annual average flows (taking an arithmetic average of positive export flows and negative import flows) through the Bacton interconnector for 2001/02 was approximately 400 GWh/d.
- 6.20. In terms of short-term flexibility, it is notable that the lead-time required for the renomination of flows on the Bacton interconnector is comparable with those at storage sites. However, operational and contractual factors suggest that the flexibility that the interconnector can offer on both an inter- and intra-day basis is significantly lower than the difference between its import and export capabilities. The highest observed daily net increase in flows onto the NTS from the interconnector since it became operational is 191 GWh/d.
- 6.21. It is notable that the flexibility with which existing capacity on the Bacton interconnector is used in practice is likely to be influenced by processes of liberalisation and the development of competition throughout Europe. There are proposals to upgrade the import capability of the interconnector which could result in an increase in available flexible supplies from this source.

Interruptible supply contracts

- 6.22. The primary mechanism by which demand-side responsiveness contributes to supply-demand balancing is through the use of interruptible contracts. Currently, users on interruptible transportation terms account for 1,123 GWh/d (excluding the Bacton interconnector which was considered above). Under the contract terms, Transco has the right to interrupt users with a 5 hour notice

period for up to 45 days per year (and in some cases in excess of 45 days) subject to criteria defined in its network code.

- 6.23. There is no reliable estimate of the extent to which customers with interruptible transportation terms also have interruptible supply agreements. It is notable that the terms of the commercial interruption arrangements (including the number of days available for interruption and the costs associated with exercising interruption rights) are likely to differ significantly from those agreed with Transco for transportation interruption. Where a customer has interruption arrangements for both transportation and supply, it is also important to recognise the potential for distortions to arise in the commercial flexibility that these contracts offer in practice given interactions between the usage of the two sets of arrangements.
- 6.24. The interruptible capacity level referred to above relates to the peak daily quantity exposure that suppliers may face in aggregate from providing gas under the relevant supply contracts. However, when considering the potential for interruption to substitute for storage services, it is useful to recognise that the amount of capacity available for interruption at any particular time will depend on the actual off-take levels at that time, and the opportunity cost of exercising the interruption rights will be assessed against expectations of subsequent demand levels and prices. The important point here is that interruption can allow the quantity of gas available for supply to other customers—for example, domestic and small industrial and commercial customers—to be increased, and in this way can thought of as a substitute source of flexible response.
- 6.25. Customers with firm transportation contracts may also enter into interruptible gas supply contracts, and/or contracts that are indexed to spot prices such that the benefits to the customer of reducing demand may be closely related to market conditions. The potential for demand reduction that might be associated with such contracts may be significant, although estimates have varied considerably.

7. Issues arising from the transaction

Introduction

- 7.1. The wide range of Centrica's activities (listed in chapter four above) has the potential to raise many issues when ownership and operation of the largest storage facility in the UK is included. This requires detailed analysis of Centrica's position. To that end, Ofgem has requested a significant amount of information from Centrica.
- 7.2. The information collected from Centrica, together with consultation responses, will enable Ofgem to come to a view on the issues identified in this document. Ofgem's initial view, on the basis of preliminary analysis and estimates of Centrica's position in various relevant activities, is described below.

The nature of the transaction

- 7.3. Centrica's purchase of Rough can be described in terms of what has been secured by means of the purchase. This includes:
- ◆ ownership of all storage rights (other than existing bookings running to the end of the 2003/04 storage year);
 - ◆ operational control of the Rough storage field and related assets;
 - ◆ control over investment decisions; and
 - ◆ access to customers' operational and commercial information.
- 7.4. The rights that Centrica has acquired through this purchase need to be considered alongside the other sources of flexibility that Centrica owns, or to which it has contractual rights.

Beach swing

- 7.5. Centrica has a significant amount of beach swing. In particular, Centrica owns the Morecambe fields, which are considered to be relatively high-swing fields and have recently delivered at peak around 450 GWh/d.¹⁰ This figure can be set against the deliverability of Rough of 455 GWh/d. Thus the Morecambe gas fields are currently offering similar deliverability to the whole of the Rough storage facility. Centrica delivers gas from its Morecambe fields, along with gas from a number of smaller third-party fields, to the Barrow entry terminal. Ofgem notes that in 2000/01 the maximum daily throughput at Barrow was 550 GWh, with a maximum theoretical delivery on the peak day of over 600 GWh.¹¹
- 7.6. Centrica is also party to a significant number of other beach contracts. Ofgem has analysed the amount of gas allocated to Centrica in 2001/02. The difference (excluding Rough and interconnector flows) between summer gas flows and winter gas flows is significantly more than the flexibility available from Rough. We observe that the maximum day to day variation in the gas allocated to Centrica at the beach is somewhat less than the flexibility available from Rough.
- 7.7. Ofgem is examining the within-day flexibility of Rough in comparison to beach gas, and intends to examine hourly data on the sub-terminals to allow a direct comparison to be made between the deliverability of Rough and the ability to swing up at the beach. A direct comparison can also be made between the injectability of Rough, and the ability to swing down at the beach. The nature of the allocations at most sub-terminals do not allow a company specific comparison to be made. However, as Centrica is the main party at Barrow, a direct comparison between Barrow and Rough will be made.

The interconnectors

- 7.8. Centrica has contracts that involve usage of the interconnectors at Bacton and Moyle. Ofgem is seeking information on the amount of flexibility to which Centrica has access as a result of these contracts.

¹⁰ Wood-Mackenzie figure supplied by Centrica.

¹¹ Transco Ten Year Statement.

Interruptible supply contracts

- 7.9. Centrica has a significant amount of flexibility arising from its interruptible contracts. These include contracts to industrial and commercial customers. Centrica also supplies a number of power stations, including those supplied under its legacy long term interruptible (LTI) contracts.

Existing storage bookings

- 7.10. Ofgem has asked for information concerning any rights to storage services that Centrica held prior to its purchase of Rough, including any relating to potential developments of new sites or capacity. Ofgem understands that Centrica's holdings of rights prior to the transaction were equivalent to around 25% of total storage space and around 29% of total storage deliverability.¹²

Impact of Centrica's purchase on related markets

- 7.11. Definition of the market(s) relevant to analysis of a merger depends upon an assessment of substitutability, both on the supply and demand sides. However, the effects of a merger are not necessarily confined to the relevant market(s) that are defined as a result of this assessment, where parties to the transaction are active in other, related, markets. The outcome of a merger in a relevant market could have anti-competitive effects in other related markets or market segments. This section outlines some of those possible impacts.

Gas supply

- 7.12. Demand fluctuations are particularly pronounced in relation to domestic customers—peak domestic demand is usually close to three times average domestic demand. Given this, a gas supplier's demand for flexible supplies is likely to be heavily influenced by the size of its domestic customer base. An implication of this is that the cost base of suppliers in the domestic market, and the cost of entry into the domestic market (or of expanding an existing position in that market) will be affected by the costs of securing the capacity for

¹² figures supplied by Centrica.

flexibility. This highlights the potential sensitivity of the level of competition in the provision of domestic gas supply to changes in the level of competition for upstream sources of flexible supply.

- 7.13. It will be important to assess the extent to which the increase in Centrica's position in storage and alternative sources of flexibility as a result of this transaction could have a detrimental effect on competition in the domestic gas supply market, and to take into account Centrica's dominant position in domestic gas supply (Centrica supplies around 65% of domestic customers). In assessing these issues, it will be important to recognise the potential for the perception of Centrica's position as a result of the transaction (as opposed to any specific subsequent conduct) to depress the level of competition in domestic gas supply, to deter Centrica's competitors from seeking to expand their market shares, or to act as a deterrent to entry into the domestic supply market.
- 7.14. A further point to consider is that Centrica's purchase of Rough has removed the largest purchaser of storage services from the market. The operation of the Rough facility by Dynegy may have been commercially constrained by the fact that Centrica is such a significant purchaser of storage services. This possible constraint on the owner of Rough has now been removed.

Electricity supply

- 7.15. Centrica is a significant electricity supplier, and supplies about 22% of the domestic market. A common approach to the electricity market, particularly at the domestic level, is to offer dual fuel supplies (ie, to supply both gas and electricity). As explained above, it is possible that the Centrica's ownership of Rough could deter new entry into the gas supply market, or deter existing suppliers from competing for customers. The transaction could therefore also depress the level of competition in or deter new entry into the domestic electricity market, and hence to result in electricity prices being higher than they would otherwise have been. However, it could alternatively be argued that a transaction that strengthens Centrica might be beneficial to competition if it allowed Centrica to compete more vigorously with the ex-PES suppliers.

Electricity generation

- 7.16. As well as being a major supplier of gas to power stations, Centrica also owns a number of power stations. Gas fired electricity generation currently accounts for somewhat over a third of GB electricity generation. Gas fired power stations, particularly where their contracts allow flexibility, can arbitrage between the gas and electricity markets. Significant control, for example through interruption, by Centrica over flexible sources of gas could impact the way in which the electricity market develops.

Gas trading

- 7.17. Centrica, through British Gas Trading as well as Accord, is a significant gas trader. The addition of the ownership, as well as operational control, of Rough would give Centrica access to confidential information about the position of its trading counter-parties that could be valuable. Any impact on trading resulting from this purchase could itself be exacerbated were there to be an (unrelated) reduction in liquidity in the market.

Ofgem's initial view

- 7.18. The discussion above has indicated the extent of Centrica's interests. Ofgem has also indicated ways in which the ownership and operation of Rough could, when combined with Centrica's other interests, affect competition in the provision of flexibility as well as related markets.
- 7.19. There seem to be several aspects of the purchase that, at this stage, appear to be potentially detrimental to competition. Firstly, the combined ownership, and proposed operation, of the Morecambe and Rough fields can be considered. In this regard, the 1998 storage review, which considered the combination of owning the Morecambe fields and supplying the majority of domestic customers, found as follows:

"The market position of BGT/Centrica, coupled with the company's operational control of the Morecambe fields, is a potentially distorting influence on competition, both directly in the market for storage services and indirectly through BGT's impact on gas prices."

- 7.20. Ofgem considers that the distortions identified in the 1998 storage review can be expected to be *reinforced* by Centrica's ownership of Rough—as an existing supplier of flexibility, Centrica has an additional incentive to avoid low prices of flexibility. Ofgem's initial view is that the transaction could increase Centrica's ability to influence prices of flexibility and/or domestic gas supplies, and hence that the transaction could be detrimental to competition. Dynegy was required (through its undertakings) to make all storage capacity available to the market on non-discriminatory terms. Centrica is not proposing to do this.
- 7.21. Secondly, given its position in terms of substitute sources of supply and demand flexibility, Centrica may not face incentives to be as innovative in terms of developing new storage services as an owner with different existing interests. This could have an impact on the manner in which existing capacity is utilised and operated. In addition, Centrica could also face distorted incentives in relation to new investment decisions at Rough, given its wide interests in substitutes for storage.
- 7.22. Thirdly, Centrica's access to confidential information could be detrimental to competition, for example, in wholesale gas trading.
- 7.23. The quantitative significance of these various possible effects remains to be evaluated. To the extent that these factors, and others that are identified in the light of further analysis and consultation responses, are found to give rise to a substantial lessening of competition, careful consideration will have to be given to the extent to which these detriments might be able to be fully remedied through undertakings. It is notable that many of the concerns identified above arise because of Centrica's unique existing position, and hence would probably not have arisen had Rough been sold to any other party. Thus, were a regulatory solution to these concerns (such as statutory undertakings in lieu of a reference to the Competition Commission) to be found, Ofgem's view is that the solution would be likely to be more onerous in the present case than it might have been had Rough been purchased by another company. Ofgem considers that, in general, and other things being equal, regulatory solutions are not as effective in protecting customers' interests as is the operation of effective competition. Were undertakings to be proposed to remedy the impacts of this transaction on competition, Ofgem would consider carefully whether it could advise the DGFT

that the proposed undertakings would be likely fully to remedy the otherwise negative impacts on competition. In doing so, Ofgem would take into account its current analysis (which builds on that undertaken during previous efforts to lessen the degree of regulatory intervention in relation to storage services), as well as responses to this consultation exercise.

- 7.24. For the reasons given above, at this time, Ofgem's initial view is that Centrica's purchase of Rough can be expected to give rise to a substantial lessening of competition. On the basis of its preliminary analysis, Ofgem has not come to an initial view as to whether, or how, the impacts on competition associated with this transaction might be fully remedied. Ofgem will do so in light of the more detailed analysis currently underway, and responses to this consultation exercise.
- 7.25. If, in light of more detailed analysis and the responses to this consultation process, Ofgem concludes that the impacts of the transaction on competition cannot be fully remedied by undertakings proposed by Centrica, Ofgem would advise DGFT that the transaction be referred to the Competition Commission.

Possible undertakings

- 7.26. It is possible that it could be concluded that the detriment to competition caused by this transaction could be fully remedied by undertakings (to be given by Centrica to the Secretary of State). Ofgem has given initial consideration to the possible scope of any such undertakings.
- 7.27. In the case of Dynegy's purchase of Rough (and Hornsea), Dynegy offered, and the Secretary of State accepted, undertakings that:
- ◆ required 100% of capacity to be put into the market; and
 - ◆ required a robust separation of the storage business from Dynegy's trading business.
- 7.28. These undertakings remedied the substantial lessening of competition that was identified as resulting from Dynegy's purchase. With respect to Centrica's purchase of Rough, Ofgem's initial view is that this transaction also represents a substantial lessening of competition. On this basis, Ofgem's initial view is that

any undertakings would have to offer at least the scope provided by the Dynegy undertakings. In this respect, Ofgem notes that Dynegy's undertakings are due to expire in 2004. However, it is clear that the interests of Centrica in possible substitutes to the services provided by Rough are significantly wider than those of Dynegy. Furthermore, Centrica's position in related markets (in particular, domestic gas supply) is very different to that of Dynegy. In that light Ofgem expects that, were it to prove possible to agree undertakings that fully remedied the detriments to competition, these would go deeper and wider than those given by Dynegy to the Secretary of State.

- 7.29. Centrica has provided an initial view on how its purchase should be assessed; this is reproduced at appendix 1. There are considerable differences between Centrica's view and Ofgem's initial view outlined in this document, and Ofgem would welcome respondents comments on both.

Summary

- 7.30. Based on preliminary analysis, it is Ofgem's initial view that Centrica's purchase of Dynegy Storage Ltd and Dynegy Onshore Processing UK Ltd might be expected to lead to a lessening of competition. Ofgem's initial view is that the transaction represents a substantial lessening of competition, but Ofgem has not come to an initial view as to whether, or how, the impacts on competition associated with this transaction might be fully remedied. If, in light of more detailed analysis and the responses to this consultation process, Ofgem concludes that the impacts of the transaction on competition cannot be fully remedied by undertakings proposed by Centrica, Ofgem would advise the DGFT that the transaction be referred to the Competition Commission.
- 7.31. Alternatively, should Centrica offer undertakings which, in light of further analysis and the results of this consultation exercise, would remedy fully all of the competition detriments identified, Ofgem would expect to advise the DGFT accordingly. At this stage, it is Ofgem's initial view that, were it to prove possible to agree undertakings that fully remedied the detriments to competition, these would go deeper and wider than those agreed with Dynegy to address the competition detriments resulting from its purchase of Hornsea and Rough in 2001.

7.32. Ofgem will consider responses to this consultation exercise, as well as the results of its ongoing analysis of the transaction, in developing its advice to the DGFT.

8. Conclusions

- 8.1. Ofgem is seeking the views of interested parties on Centrica's acquisition of the Rough gas storage field and Easington gas processing terminal, so that Ofgem may advise the DGFT on the impacts of the transaction on competition.
- 8.2. Whilst we invite views on the specific issues raised in this document, we would also welcome views on other competition or regulatory issues raised by the merger that have not been highlighted in this document.
- 8.3. Responses will normally be available in the Ofgem library and on the Ofgem web site unless there are good reasons why they must remain confidential. Respondents should mark the part of their response (or whole response) which is to remain confidential, if this is the case, and where possible should consign any confidential material to appendices.
- 8.4. Ofgem considers that the issues raised by this transaction are particularly significant, and would therefore find it helpful to meet respondents to discuss their concerns.
- 8.5. Comments on the proposed acquisition should be sent, by 5pm on Wednesday 11 December, 2002, to:

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Appendix 1: Centrica's views

Centrica's Acquisition of Rough

Centrica's Views

Centrica's acquisition of the Rough facility is to be viewed against the background of Centrica being a long term committed player in the competitive gas supply market in the UK. Moreover, Centrica believes its ownership of the Rough storage facility will remove the recent uncertainty over the future of this important facility and its contribution to UK security of supply.

Centrica is committed, as the owner of Rough, to ensure the continuing availability of Rough storage services to the market as a whole. Centrica has a proven track record of innovation in the markets in which it operates and believes that, through its ownership of Rough and the plans it has to manage that ownership, the competitive offerings available to both existing and potential customers of Rough storage services will be enhanced.

Centrica, as the owner of Rough, intends to utilise the asset in the most effective way for the market as a whole. The customers for Rough (and other storage capacity) comprise, in effect, a mix of:

- Producers who want to add swing and flexibility to the gas they produce prior to sale;
- Traders and shippers who may want to add swing and flexibility to sale; and
- Suppliers who want to add swing and flexibility to the beach or wholesale gas they purchase.

The Centrica storage business plans to develop a range of new services, driven by storage customer needs, including, for example, both long term and short term storage offerings so customers will be able to choose from a range of annual and multi-year contracts on auction and bilateral arrangements, catering for new entrants and established players.

As the supply of indigenous higher swing UK produced gas reduces and the UK becomes more reliant on lower swing UKCS and imported gas, there will be an

increasing requirement for more UK storage. Rough is, therefore, expected to play an increasingly significant role in the market for seasonal storage capacity over the next few years.

Centrica understands that there may be concerns in it owning Rough on the one hand, and acting as the major gas supplier to the domestic gas market in Great Britain on the other. However, given the limited availability of new storage facilities in the UK at present, and given the importance of Rough for the industry, it is Centrica's view that assurances covering the areas outlined below would be required by any owner of the Rough facility.

In Centrica's view, there are two principal areas where the market will require appropriate assurances arising from ownership of the Rough facility. These are outlined below.

Separation

Centrica understands the importance of undertakings to ensure that there will be robust separation of the storage asset and commercial dealings with storage customers from any of Centrica's supply and storage procurement and trading activities.

Centrica has previously had considerable experience of operating Chinese Walls when the former British Gas plc was required to separate its gas transportation business from its gas supply and shipping business. Centrica wishes to assure the market that it put in place strong separation arrangements immediately following the acquisition and, indeed, managed its due diligence exercise so that no staff on the gas supply side of the business had access to commercial information relating to any individual storage customer. Centrica is confident that it can satisfy the market and the authorities on the ring-fencing of the Rough storage asset and the protection of commercially sensitive customer data by maintaining robust physical, financial, information and systems separation.

Capacity availability

Centrica also recognises the need for maximising the availability of Rough Storage capacity to the market on non-discriminatory terms. Centrica recognises this as a key requirement for the market so that there is no concern over substantial lessening of competition in the relevant market or markets.

Centrica plans to act as a reasonable and prudent operator of Rough (using its expertise as an experienced operator) and in particular so as to ensure that the maximum physical capacity of Rough is available (with minimum, objectively justified restrictions) for use.

Centrica believes that the requirements of its own supply business for storage at Rough can be met without prejudice to the requirements of other current and future users of Rough, and without distortions to competition in the markets for storage (or “flexibility”), and in the downstream retail markets. Centrica is considering a number of options through which this objective can be achieved, which it will be happy to discuss in detail with Ofgem and the OFT.

We are actively considering the possibility that a proportion of storage capacity in the Rough facility – in line with past usage by Centrica - would be reserved to Centrica supply (such proportion is forecast to remain around 25-30% of total Rough capacity). In such a scenario, we would envisage the price payable being set by reference to the market price as determined by the auctions.

The remainder of the capacity would be made available to third parties by auction or bilateral contracts, and would be available on short or long term arrangements (ranging from annual contracts up to 5 years).

An alternative arrangement to reservation of capacity to Centrica’s supply business could be full participation by Centrica’s supply business in auctions or bilateral sales again on non-discriminatory terms.

Centrica is working towards more detailed proposals, which it believes would be fully capable of addressing any concerns that may arise from its dual role as owner and user of the Rough facility, and its downstream market position.

Centrica’s overall view remains that the acquisition does not lead to a substantial lessening of competition in the storage market or any related market, but that any concerns could be addressed by appropriate undertakings in the two principal areas above in lieu of any reference to the Competition Commission. Centrica looks forward to discussing the nature and substance of any such undertakings with Ofgem and the OFT.

27.11.2002