

Review of competition in the non-domestic gas and electricity supply sectors

Initial findings

July 2003
72/03

Summary

This paper sets out the findings of a review of the state of competition in the non-domestic gas and electricity supply sectors in Great Britain. These findings open a further set of questions, and so this paper also invites comments.

The review was undertaken in response to customer concerns regarding service quality, level of supplier competition, problems with switching supplier and data quality. Customer concerns appeared to be more pressing in some sectors of the market than others. Ofgem has therefore devoted a substantial part of the review to identifying the boundaries within which competition takes place, looking at demand and supply-side substitutability.

A customer's level of spend on gas and electricity and the extent of the customer's control over energy consumption appear to be key determinants of what alternative supply arrangements are feasible. The costs of participating in more complex supply arrangements must be justified by the benefits of doing so, and it appears that the net benefits of negotiating bespoke terms are only significant for larger customers and/or those with more control over consumption.

On the supplier side, the business processes required to serve many smaller customers appear different to those required to serve larger customers, while the risks inherent in serving the largest customers are such that only certain suppliers may be able to assume them. The processes involved in supplying gas are also different to those relating to electricity, which means a supplier could not quickly begin supplying the other fuel in response to a market opportunity.

We have therefore considered gas and electricity markets separately, and have examined separately competition for small, medium and large non-domestic customers. We have not found that traditional industry categories such as meter type or single-site versus multi-site are good indicators of barriers to substitution or the dynamics of competition, although we find that use of interruptible contracts is a useful way of identifying the largest gas customers.

This paper seeks comments on a range of factors that inform either this view of market segmentation or other possible segmentations.

Indicators of competitiveness, as they relate to different groups of customers, are considered. The findings suggest that these markets vary in terms of concentration, with evidence of market entry, a range of prices and substantial switching activity.

Evidence on customer switching suggests a significant number of customers are able to change supplier successfully, while the number of new entrants confirm that new suppliers continue to seek entry to the non-domestic supply sector.

For the largest customers, the risks inherent in serving these customers appear to limit the number of active suppliers. Since buyer power appears to be a feature of this market, high levels of concentration are less indicative of low levels of competitiveness or supplier market power. Changes in market shares of suppliers may be a more relevant indication of competitiveness than concentration in these circumstances.

Where market shares suggest high levels of concentration in some of the more narrowly defined markets, in the event of a merger which impacted on such areas of the non-domestic supply sector, it is anticipated that Ofgem would, amongst other considerations, also closely consider the implication of such a merger on these customers.

The review also considers the concerns raised by customers:

- issues about service quality do not appear to Ofgem to raise material concerns about the state of competition in the market. Poor service quality appears more a consequence of decisions by customers over a sustained period to attach insufficient financial weight to this aspect of supply. While price may in recent years have weighed heavier than service quality in the buying process, Ofgem is aware that a growing number of customers are seeking to redress this balance. Such developments will take time to influence the standards of service in the market generally, and Ofgem will maintain contact with user groups on this issue to monitor how suppliers respond to incentives to raise their service quality
- although fewer suppliers are tendering for business than was the case a few years ago, it appears to Ofgem that current response levels do not suggest weak competition. Switching levels and price falls suggest that the incumbent supplier is subject to adequate competitive pressure and customers' ability to switch offers a material restraint on a supplier's market behaviour

- Ofgem has already challenged suppliers to improve the transfer process. Concerns about this process have been borne out by Ofgem's investigation in this review as well as by other initiatives undertaken by Ofgem and other industry bodies, and
- the review has uncovered customer concerns about a lack of transparency as to how suppliers use their ability to make objections. Ofgem has therefore proposed that the terms of the gas supply licence and the Master Registration Agreement (MRA) are changed, to place the onus on the supplier and customer to agree how their relationship should be managed.

Comments on Ofgem's views in this paper are welcomed and a full list of questions on which Ofgem is particularly interested in respondents' views is set out at the ends of Chapter 4 and Chapter 5 of this document.

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1. Rationale

- 1.1. This document is a report on Ofgem's review of the non-domestic electricity and gas supply sectors in Great Britain (GB). Ofgem's corporate plan¹ sets out its intention to monitor the competitiveness of the supply markets and this document fulfils this objective for the non-domestic sector. The 2003 review follows Ofgem's "*Review of the development of competition in the industrial and commercial gas supply market*", August 2000 and, "*A review of the development of competition in industrial and commercial electricity supply*", December 2000.
- 1.2. During the 1980s and 1990s the electricity and gas industries in GB were transformed from integrated statutory monopolies to industries characterised by a greater degree of vertical and horizontal separation. A key objective of the reform process was to introduce competition into these sectors where feasible. Facilitating competition in the supply of electricity and gas to end-users was an important component of the process. Competition for the supply of energy to non-domestic customers is now well established. Non-domestic gas suppliers have, for the past eleven years, competed in the gas supply market on a nationwide basis. Competition in the non-domestic electricity supply market has existed for nine years.
- 1.3. This review has been undertaken in part as a "health check" on these important markets. A number of mergers involving suppliers to the non-domestic sector have also raised concerns among customer groups. A greater level of consolidation between suppliers is perceived by some customers as a diminution of choice that is detrimental to customer interests. In addition to concerns about the general level of market concentration, non-domestic customers and representatives of user groups have presented a number of specific areas of concern about aspects of the non-domestic sectors. The review also examines these concerns, in particular:

¹ Ofgem Corporate Strategy 2003-2006, March 2003.

- **Service quality** – Customers have suggested the level of resource provided by suppliers to resolve breakdowns in service quality is inadequate, while resolution of problems involves increasing amounts of customers’ resources
- **Level of supplier competition** – Concerns have been raised about declines in the number of tender responses, and some customers consider that the number of tender responses has now fallen below levels where they can expect to receive competitive bids from suppliers. Customers are also of the view that there has been a reduction in the variety of supply offers available. A related feature of supplier offers that has raised concern is the limited period for which many supplier offers are held open
- **Switching supplier** – Customers have argued that an essential feature of customer choice is the ability to choose an alternative supplier and expedite the change in a reasonable period of time. They regard the transfer mechanism and the objections process as significant areas of weakness in the switching process, and
- **Data quality** – Customers believe that the quality of customer consumption data, billing information and other data relating to sites has declined noticeably. They have argued that the decline in quality of such data has materially affected the operation of the market as it underpins many of the functions of an efficient supply market. In particular, the supplier hub is considered central to the problems in this area.

1.4. The above issues tend to vary in importance depending on customer characteristics. Many non-domestic electricity and gas customers, for example, are characterised by lower consumption levels. Individually, these smaller customers may be expected to have less influence over supplier service quality where back-office processes serve mass markets. However, many of these smaller customers typically have ongoing supply agreements. The absence of specific contract expiry dates may reduce the complexity and risks of the change of supplier process to which customers with many sites or larger customers may be exposed. By contrast, customers with many sites appear more vulnerable to problems related to service quality, supplier switching and data quality. The largest customers face different risks, given the scale of their reliance on gas and

electricity and the potential costs entailed by delayed transfers or out-of-contract positions. The alternatives available to these customer groups to resolve such issues can be materially different. Customers with smaller levels of consumption are likely to rely on the availability of alternative suppliers to address supplier concerns since they do not generally have recourse to bespoke contracts. Larger customers appear to enjoy a more substantial negotiating position given the amount of revenue they represent to suppliers and the scope to negotiate quality of supplier service.

- 1.5. While the issues raised by customers are relevant to the effective operation of the market, and therefore its competitiveness, in evaluating these concerns it is useful to assess whether there is any failure of competition, or whether the origin of such concerns lie in the non-competitive aspects of the market such as industry processes or legacy systems. This distinction provides an indication of the appropriate regulatory tools which may be drawn on to address such concerns where these are considered material.

2. Introduction

Structure of the document

- 2.1. Chapter 3 examines the background to this review. This includes an explanation of the regulatory framework against which competition in the non-domestic market continues to develop. It also discusses previous Ofgem reviews and related investigations by other authorities, together with the process undertaken for this review. Finally, the chapter sets the UK non-domestic sector in context with other EU members before describing the industry structure and the market infrastructure within which the industry operates.
- 2.2. Chapter 4 presents the findings of this review. It sets out a framework to assess the level of competitiveness by first considering the relevant product and geographic markets, which include Ofgem's initial views on customer characteristics that may be relevant to the potential economic markets. Indicators of competitiveness are also discussed.
- 2.3. Chapter 5 follows these initial findings with a further discussion of the concerns raised by non-domestic customers. These include the broad categories of service quality, the level of supplier competition, switching of supplier and data quality.

Views invited

- 2.4. Ofgem would welcome views on any of the issues raised in this review. Responses should reach Ofgem by Tuesday, 30 September 2003, and should be sent to:

Naval Naik
Retail Competition Regulation
Ofgem
9 Millbank,
London SW1P 3GE
Email: naval.naik@ofgem.gov.uk

- 2.5. Where responses have been sent in paper copy, it would be helpful if they could also be sent electronically. Unless marked clearly as confidential, all responses will be published by placing them in Ofgem's library and on Ofgem's website.
- 2.6. Ofgem would welcome views from respondents on whether an industry seminar would prove useful to discuss the issues addressed in this review.

3. Background

3.1. This chapter summarises the regulatory framework within which Ofgem operates. Previous Ofgem reviews and related investigations by other authorities, and the process undertaken for this review are also discussed. This is followed by an overview of the industry, which looks at the European context, industry structure and the infrastructure of the market.

Regulatory framework

3.2. Ofgem is the regulator for GB's gas and electricity industries. Its role is to protect and advance the interests of consumers, wherever appropriate by promoting effective competition. Competition is now established in the gas and electricity retail markets, and an important focus of Ofgem's work is to ensure that the supply markets remain competitive.

3.3. The legislative and regulatory duties and powers particularly relevant to this review are contained within:

- the Gas Act 1986 (as amended) ('the Gas Act')
- the gas suppliers' and shippers' licences
- the Electricity Act 1989 (as amended) ('the Electricity Act')
- the electricity supply licences
- the Master Registration Agreement ('MRA')
- the Competition Act 1998 ('the Competition Act'), and
- the Utilities Act 2000 ('the Utilities Act').

3.4. In July 2000, the Utilities Act received Royal Assent. The Act amended the Gas Act and the Electricity Act to create the 'Gas and Electricity Markets Authority'.²

3.5. **The Gas Act** - Section 34 of the Gas Act imposes a duty on Ofgem, so far as it appears to be practicable, from time to time to keep under review activities connected with the transportation, shipping and supply of gas.

² Ofgem operates under the direction and governance of the Gas and Electricity Markets Authority. The Authority's role in the management of Ofgem is set out in its rules and procedures.

- 3.6. **Gas shippers' and suppliers' licences** - The Gas Act provides for the licensing of gas shippers and suppliers. These licences contain GB-wide standard conditions that apply to all shippers and suppliers and, where appropriate, any special conditions.
- 3.7. **The Electricity Act** - Section 47 of the Electricity Act imposes a duty on Ofgem, so far as it appears to be practicable, from time to time to keep under review activities connected with the generation, transmission and supply of electricity.
- 3.8. **Electricity supply licences** - The Electricity Act provides for the licensing of electricity suppliers. The Utilities Act removed the distinction between first-tier suppliers (Public Electricity Suppliers (PESs) operating in their authorised area) and second-tier suppliers (out-of-area PESs and independent suppliers that had entered the market as new entrants). There are now GB-wide supply licences which contain standard conditions for all electricity suppliers and, where appropriate, any special conditions.
- 3.9. **Master Registration Agreement (MRA)** - The MRA is the multi-party agreement that all licensed electricity suppliers and distribution businesses enter into, that governs the essential interactions between them when retail customers wish to change their supplier. Elexon (the Balancing and Settlement Code Company) and Scottish Electricity Settlements Limited (SESL) are signatories to the agreement as essential aspects of wholesale market operation are under MRA governance.
- 3.10. **The Competition Act** - On 1 March 2000 substantive parts of the Competition Act came into force. This replaced most of the Competition Act 1980, the Restrictive Trade Practices Acts 1976 and 1977, and the Resale Prices Act 1976. The Competition Act contains two prohibitions. Chapter I prohibits agreements between undertakings, decisions by associations of undertakings and concerted practices that have as their object or effect the restriction, distortion or prevention of competition within the United Kingdom. Chapter II prohibits abuse of a dominant position by an undertaking within the United Kingdom. Any undertaking found to have breached either of the prohibitions may face a fine of up to 10 per cent of its turnover for each year of the breach up to a maximum of three years.

3.11. Ofgem has concurrent powers with the Office of Fair Trading (OFT) to apply the Competition Act to the gas and electricity sectors in GB. The Authority's principal objective and duties do not apply to the concurrent exercise of powers under the Competition Act. The OFT, along with Ofgem and other sectoral regulators, has issued advice and information in accordance with Section 52 of the Competition Act, explaining how the Act will be implemented. These guidelines are available on OFT's website at www.oft.gov.uk.

Previous Ofgem reviews and related investigations by other authorities

3.12. The 2000 reviews of the non-domestic sector³ concluded that competition was developing well in both the electricity and gas markets. Some concerns were raised, which consequently formed a significant part of the work undertaken by Ofgem and other authorities since those reviews.

Electricity

3.13. In the electricity market, there were concerns about potential entry barriers such as the lack of unbundling of distribution and supply, the administrative burden of market entry and the lack of alignment of Scottish trading and transmission arrangements with those in England and Wales.

3.14. Through the Electricity Act, following amendment by the Utilities Act, distributors and supply businesses are required to be separate legal entities. New licence obligations have been added to prevent cross-subsidisation, ensure independence and which necessitate the appointment of a compliance officer to monitor business separation.⁴

³ "A review of the development of competition in the industrial and commercial gas supply market", Ofgem, August 2000; "A review of the development of competition in the industrial and commercial electricity market", Ofgem, December 2000.

⁴ Electricity Distribution Licence Standard Condition 39 – Restriction on Use of Certain Information and Independence of the Distribution business; Standard Condition 40 – Appointment of a Compliance Officer; Standard Condition 41 – Prohibition of Cross-subsidies. See also "Separation of PES businesses: progress report", Ofgem, November 2000; "Separation of PES businesses: A review of standard licence condition 39 of the proposed new distribution licence, A decision paper", Ofgem, February 2002.

- 3.15. Customers and suppliers also complained about the use of the objections mechanism by existing suppliers to block customer transfers. In December 2002, Ofgem consulted on strengthening the rights of gas and electricity non-domestic customers by enabling suppliers to object only in limited circumstances, either when permitted in their contract, or where both suppliers had agreed an erroneous registration has occurred, or for specific technical reasons concerning related meter points (see Appendix 1).⁵
- 3.16. The Department of Trade and Industry (DTI) and Ofgem have committed resources to the implementation of the British Electricity Transmission and Trading Arrangements ('BETTA') in 2005 which is aimed at providing a consistent set of trading and transmission arrangements across GB. The Government has indicated it aims to ensure that the Electricity Trading and Transmission Bill is passed by Parliament in time for implementation by April 2005. On Wednesday 18 June 2003, Ofgem also announced in a press release that the target for BETTA going live would be April 2005. BETTA is aimed at increasing the competitive pressure on retail prices across Britain by, amongst other things, providing equal access for Scottish consumers to the benefits of competition in wholesale electricity trading. Ofgem and the DTI are currently consulting on creating the framework required to facilitate BETTA.

Gas

- 3.17. In the gas market, a concern raised in the previous non-domestic review was the sharp rise in wholesale gas prices over the summer months in 2000. In its subsequent investigation of wholesale market activity over this period, Ofgem found evidence that some shippers were skewing delivery into the National Transmission System (NTS).⁶ However, there was insufficient information to determine which shippers were skewing delivery of gas. It was also unclear whether this was a legitimate response to shippers closing out positions on the

⁵ "Transfer objections: stronger rights for industrial and commercial customers, A Consultation Document" Ofgem, December 2002.

⁶ By not flowing gas through the pipeline system in a smooth and predictable manner over the day, shippers were forcing Transco to draw on gas stored in the pipeline system. This was leading to increasing difficulties in keeping the pipeline system in balance, possibly increasing prices and potentially posing a threat to security of supply.

day or whether it was an attempt to force Transco to take balancing actions and hence affect prices.

- 3.18. Since then, Ofgem has been taking forward its work to improve the performance of the gas balancing regime. In April this year, Ofgem published its latest proposals on the operation of the NTS. It considered that major reform of the balancing regime, including the introduction of shorter balancing periods, was not necessary at this time.⁷ Ofgem has proposed the introduction of a set of performance indicators to give an advance warning of any potential threat to security of supply.
- 3.19. In its November 2001 consultation,⁸ the DTI examined concerns about how upstream gas infrastructure affects downstream gas market prices. Based on work undertaken by Ofgem and the DTI, and given the responses to this consultation, the DTI subsequently re-assessed the materiality of these concerns in a document published in November 2002.⁹ These documents included a discussion of improvements to information flows upstream and between offshore and onshore markets. The DTI concluded that further consideration of the issues was necessary and it intends to report on these in due course.

European Union energy liberalisation

- 3.20. Liberalisation of energy markets in the European Union (EU) is intended to facilitate the growth of more competitive supply markets which will, in turn, benefit consumers by increasing efficiency, choice and result in more competitive prices. The current timetable set at the meeting of the European Energy Council in November 2002 requires open competition in EU non-domestic markets by July 2004; the deadline for full market opening is set at July

⁷ "The New Gas Trading Arrangements, Further reform of the gas balancing regime, A consultation document" Ofgem, February 2001; "The New Gas Trading Arrangements, Reform of the gas balancing regime, Revised Proposals" Ofgem, February 2002; "The Gas Trading Arrangements: Reform of the gas balancing regime – Next Steps", Ofgem 21/03, April 2003.

⁸ "A Consultation on Concerns About Gas Prices and Possible Improvements to Market Efficiency", DTI, November 2001.

⁹ "Response to Consultation on Gas Issues", DTI, November 2002.

2007. Other requirements include the legal separation of transmission operators by July 2004 and the legal separation of distribution operators by July 2007.¹⁰

Energy White Paper

3.21. In February 2003, the UK Government published its Energy White Paper.¹¹ It underlined the Government's commitment to a low carbon economy, setting a target of a 60 per cent cut in carbon emissions by 2050. The White Paper said that the Government's other main objectives were security of supply, competitiveness and eradicating fuel poverty. Other commitments include pushing for fully competitive gas and electricity markets within the EU.

Process undertaken for this review

3.22. This review has included discussions between Ofgem and representatives from the main user groups, including the Energy Intensive Users Group, Major Energy Users Council, Chartered Institute of Purchasing and Supply and the Retail Energy and Environment Club, as well as other non-domestic customers. Ofgem has also held further interviews with a number of suppliers to the non-domestic sectors.

3.23. Ofgem has also commissioned research from John Hall Associates which has provided information on customer profiles and key features of contractual arrangements in the non-half hourly and half-hourly electricity markets, as well as the gas markets. Datamonitor has been commissioned to assist Ofgem's review by providing research support in defined areas of this review. Suppliers have responded to an information request to supply data on market shares, switching and pricing levels.

3.24. A review of available academic literature about the non-domestic sectors has also been conducted, and a list of these sources is set out in Appendix 2.

¹⁰ Minutes from the meeting of the EU Council Meeting can be found at: <http://ue.eu.int/Newsroom/loadbook.asp?BID=87&LANG=1>

¹¹ "Energy White Paper: Our energy future – creating a low carbon economy", DTI, February 2003.

3.25. While Ofgem has sought to assess the issues raised as comprehensively as possible, the evidence presented also reflects discussions with a sample of customers and suppliers. This paper therefore requests views on aspects highlighted in the discussion. A list of areas on which specific comments are requested is set out at the ends of Chapter 4 and Chapter 5.

Overview of the industry

European context

3.26. This section draws on European Commission research in comparing aspects of the non-domestic gas and electricity supply sector in GB, and those in other EU member states. In previous competitive market reviews of the non-domestic supply sector, Ofgem considered a range of indicators to review the development of competition. These indicators included the extent of market entry and exit, market shares, retail prices, switching behaviour and barriers to entry in the market.

3.27. The European Commission undertakes a similar exercise when it reviews the progress of internal market opening for gas and electricity. The second benchmarking report on the implementation of the internal electricity and gas markets¹² is an evaluation of progress against the Gas and Electricity directives.¹³ Highlights of the latest benchmarking report are presented below, with particular reference to the UK's performance in comparison with other member states.

Electricity

3.28. Table 3.1 provides a summary of the report to the European Commission on the electricity sector.

¹² Commission Staff Working Paper, "Second benchmarking report on the implementation of the internal electricity and gas market", Brussels 01/10/02 SEC (2002) 1038. This report is available at: http://europa.eu.int/comm/energy/en/gas_single_market/2benchmarking/sec_2002_1038_en.pdf

¹³ The Electricity and Gas Directives were adopted in 1996 and 1998 respectively. The objective of the directives is to open up the electricity and gas markets through the gradual introduction of competition, thereby increasing the efficiency of the energy sector and the competitiveness of the European economy as a whole.

Table 3.1 Summary of the electricity sector evaluation

	Declared market opening	Full opening date	Balancing condition favourable?	Largest 3 generators' share of capacity	Largest 3 suppliers' share of capacity	Large eligible industrial users		Small commercial/domestic	
						Switch	Switch or renegotiate	Switch	Switch or renegotiate
Austria	100%	2001	moderate	45	67	20-30%	unknown	5-10%	unknown
Belgium	52%	2003/07	unfavourable	96	53	2-5%	30-50%	not eligible	
Denmark	35%	2003	favourable	78	38	unknown	> 50%	5-10%	10-20%
Finland	100%	1997	favourable	45	33	unknown	> 50%	not eligible	
France	30%	-	moderate	92	90+	10-20%	unknown	not eligible	
Germany	100%	1999	moderate	64	50	20-30%	> 50%	not eligible	
Greece	34%	-	moderate	97	100	nil	nil	not eligible	
Ireland	40%	2005	moderate	97	90	10-20%	unknown	not eligible	
Italy	45%	-	moderate	69	72	> 50%	100%	not eligible	
Luxembourg	57%	-	unfavourable	n/a	100	10-20%	> 50%	not eligible	
Netherlands	63%	2003	moderate	59	48	20-30%	100%	not eligible	
Portugal	45%	2003	moderate	82	99	5-10%	unknown	not eligible	
Spain	55%	2003	favourable	83	94	10-20%	> 50%	not eligible	
Sweden	100%	1998	favourable	90	47	unknown	100%	10-20%	> 50%
UK	100%	1998	favourable	36	42	> 50%	100%	30-50%	n/a

Source: European Commission

- 3.29. As this table shows, the UK electricity sector is 100 per cent open to competition. Only four other member states are fully open to competition though this number is expected to increase during 2003. The report notes that the UK sector is in the vanguard with respect to unbundling of network operators, alongside Finland, Sweden and Italy.
- 3.30. The balancing mechanism in the UK compares favourably with other member states given its market-based mechanism, short gate-closure period and relatively low concentration of generation. Although many member states now have a balancing market based on market principles, unlike the UK, most have a long gate-closure period (of day-ahead), and a single generator within the balancing area. An intra-day balancing market is also uncommon.
- 3.31. In wholesale markets, while a significant degree of concentration persists for the generation of electricity in many member states, the level of concentration is lowest in the UK.
- 3.32. The UK compares well with other member states on the issues of retail competition, supplier concentration ratio, switching of customers, and renegotiation of contract for both large industrial users and small commercial/domestic users. In comparison with the UK, although large users in

other member states are switching or renegotiating contracts, many smaller customers (both commercial and domestic) are not eligible to switch.

Gas

3.33. Table 3.2 provides a summary of the report to the European Commission on the gas sector.

Table 3.2 Summary of the gas sector evaluation

	Declared market opening	Full opening date	Balancing condition favourable to entry	Concentration in wholesale market	Top suppliers' overall market share	Large eligible industrial users		Small commercial/domestic	
						Switch	Switch or renegotiate	Switch	Switch or renegotiate
Austria	100%	2002	favourable	yes	unknown	< 2%	unknown	not eligible	
Belgium	59%	2003/06	moderate	unknown	95%	unknown	unknown	not eligible	
Denmark	35%	2004	unfavourable	yes	92%	2-5%	unknown	not eligible	
Finland	not eligible								
France	20%	-	moderate	yes	95%	20-30%	unknown	not eligible	
Germany	100%	2000	unfavourable	moderate	unknown	< 2%	unknown	< 2%	unknown
Greece	not eligible								
Ireland	82%	2005	moderate	unknown	unknown	20-30%	unknown	not eligible	
Italy	96%	2003	favourable	yes	10%	10-20%	unknown	2-5%	unknown
Luxembourg	72%	-	unfavourable	yes	85%	5-10%	100%	not eligible	
Netherlands	60%	2003	moderate	yes	unknown	30-50%	unknown	not eligible	
Portugal	not eligible								
Spain	79%	2003	favourable	moderate	70%	20-30%	unknown	not eligible	
Sweden	47%	2006	n/a	yes	100%	< 2%	unknown	not eligible	
UK	100%	1998	favourable	moderate	50%	> 50%	unknown	30-50%	> 50%

Source: European Commission

- 3.34. As this table shows, the UK gas sector is 100 per cent open to competition. Only two other member states were fully open to competition at the time of this report, though further opening of markets is expected in the near future.
- 3.35. On the issue of network unbundling, the UK has the strongest unbundling requirements in gas markets, and its gas system is regarded as the most developed among member states. The unbundling requirements in most member states are generally considered less robust.
- 3.36. The balancing and storage regimes in the gas market are considered favourable to competition within the UK, Austria, Italy and Spain. Analysis of the wholesale gas sector showed that the UK has one of the lowest market concentration ratios among member states in the wholesale gas markets and is the only member state with significant liquidity at its gas hub.

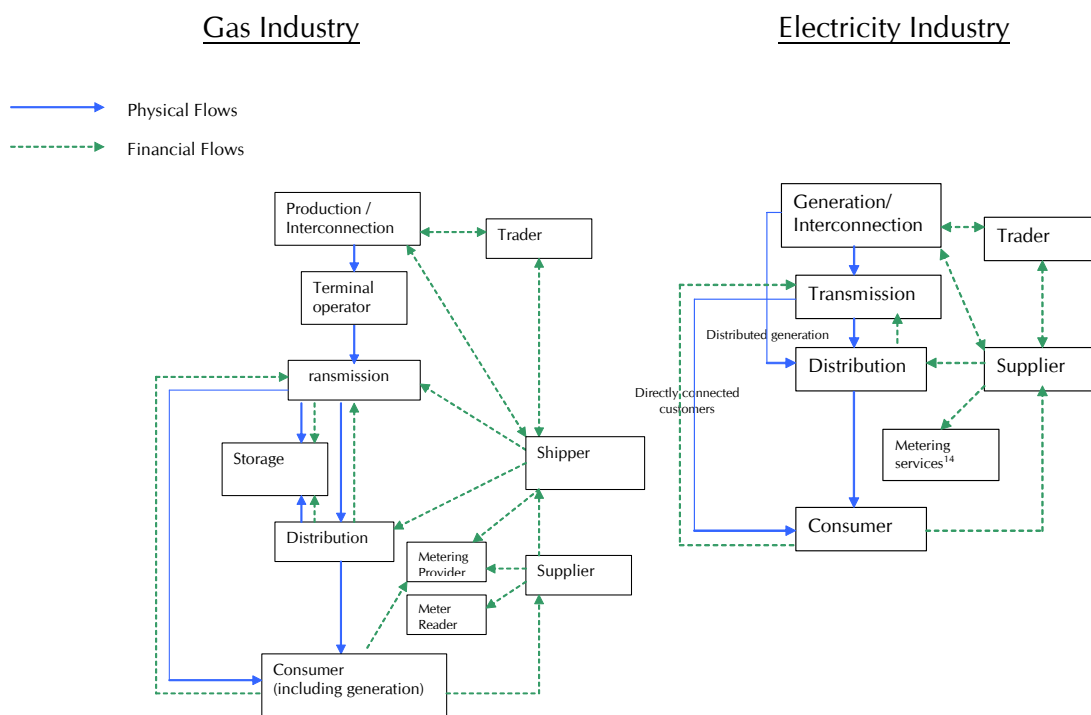
- 3.37. On the issue of price developments within the gas markets, unlike the UK, a general lack of transparency in the wholesale market and the slow development of standardised exchanges is a feature in many member states. Only the UK National Balancing Point is reported to trade with significant liquidity.
- 3.38. In conclusion, the European Commission report is favourable to both the gas and electricity sectors in the UK where there is relatively more competition, both upstream and downstream, with favourable balancing and storage (for gas) regimes. It indicates that full market opening has resulted in the highest levels of customer switching or renegotiations of contract and the lowest comparative prices in the EU.

GB context

Industry structure

- 3.39. As a result of significant restructuring and privatisation during the 1980s and 1990s, the electricity and gas industries in GB were transformed from integrated statutory monopolies to industries characterised by a greater degree of vertical and horizontal separation. A key objective of the reform process was to introduce competition into these sectors where feasible. Facilitating competition in the supply of electricity and gas to end-users was an important component of the process.
- 3.40. The current gas and electricity industry structures that have arisen from these reforms are illustrated in Figure 3.1. The diagrams depict both the financial flows and physical flows of energy. While many of the participants in the market ensure that energy flows through to end-users, some participants have no involvement in the physical process and have a financial role only.

Figure 3.1 Gas and Electricity Industry Structures



Source: Ofgem

3.41. At the retail end of the supply chain, competition was introduced gradually, through a phased approach. As Table 3.3 shows, customers with the greatest demand were first opened up to competition, with domestic customers last.

Table 3.3 Dates for contestability

	Customer type	Date of introduction of competition
Gas	> 25,000 therms per year	Dec-86
	2,500 – 25,000 therms per year	Aug-92
	< 2,500 therms per year	April-96 – May-98
Electricity	> 1 MW (Half Hourly Metered sites)	Apr-90
	100kW – 1MW (Half Hourly Metered sites)	Apr-94
	< 100kW (domestic and small non-domestic electricity customers)	Sept-98 - May-99

Source: Ofgem

¹⁴ Metering and data services includes meter asset provision (MAP) and meter asset maintenance (MAM), data collection, data aggregation, data processing, meter administration, meter registration and data transfer services. These services are discussed in more detail in the following section.

- 3.42. Competition for the supply of energy to non-domestic customers is now well established. Non-domestic gas suppliers have, for the past eleven years, been able to compete on a nationwide basis. Competition in the non-domestic electricity market has existed for nine years.
- 3.43. There has, however, been a recent trend towards consolidation of suppliers, particularly in the electricity industry. Recent mergers and withdrawals from the supply market have seen the number of active suppliers fall in recent years. For example, many of the US businesses that entered the UK electricity market after privatisation have since exited and some of the large energy utilities from EU member states have been actively acquiring UK businesses. Nine of the fourteen supply businesses that have former public electricity supplier obligations (ex-PES suppliers) are now controlled by three utilities based in mainland Europe. The remainder are owned by ScottishPower UK plc and Scottish & Southern Energy plc. Each of these businesses holds licences enabling them to supply both domestic and non-domestic customers.
- 3.44. Structural changes in the wholesale electricity market have had a positive impact on supply competition. Changes made to the electricity trading arrangements in March 2001 have contributed to a more competitive wholesale electricity market in England and Wales. Non-domestic customers have benefited from these changes to the extent that from March 2001 to October 2002, prices fell by 18 per cent, and by 30 per cent since the changes were proposed in 1998.¹⁵
- 3.45. However, competition in the wholesale market is not fully established in Scotland. ScottishPower Generation Limited and Scottish & Southern Energy plc own or contract for 98 per cent of generation in Scotland. Subject to the Electricity Trading and Transmission Bill being passed by Parliament, DTI and Ofgem are working towards improving competition in the wholesale market in Scotland through the implementation of BETTA.
- 3.46. The structure of the gas industry in GB has undergone fewer changes in recent years. After privatisation of British Gas in 1986, the company remained vertically integrated until 1995, when legislation was passed to separate its

¹⁵ "The review of the first year of NETA", Ofgem, July 2002.

supply and shipping businesses from its transportation and storage business. The Gas Act also allowed the creation of independent gas transportation networks, which provide approximately 0.5 per cent of the gas transportation capacity in GB. (The Utilities Act also allowed for the creation of independent electricity distribution network operators, although currently none exist.) British Gas's transportation business was de-merged in 2000 and is now owned by National Grid Transco plc, which also owns and operates the electricity transmission network in England and Wales.

- 3.47. Wholesale gas trading takes place via long-term contracts, over the counter (OTC) transactions, and on-the-day commodity market (OCM) transactions. A wholesale spot market allows participants to balance positions prior to settlement. At the retail end, there are a number of new entrants that are actively competing for the supply of gas to non-domestic customers.
- 3.48. Merger activity in this sector has also increased in recent years, leading to some consolidation of industry participants. A number of acquisitions have led to the creation of multi-utilities, offering electricity, gas and other services (for example water and telecommunications).

Market infrastructure

- 3.49. In the gas and electricity non-domestic supply sectors the frameworks, processes and information flows governing how market participants interact play a significant role. Two issues are of particular importance to this review - metering and the transfer process.

Metering and meter reading

- 3.50. Metering plays a central role in the supply of energy, as it is through meter readings that a customer's usage of gas or electricity is measured.
- 3.51. Metering is also important because meters provide information to the customer and the supplier on how much gas or electricity the customer has used in any given time period, which may contribute to areas such as energy management.
- 3.52. In the non-domestic supply sectors, the infrastructure facilitating the operation of meter reading and data services are of particular significance. The arrangements

differ between gas and electricity. Appendix 3 provides further detail on these arrangements.

Transfers and objections

- 3.53. A second issue of particular relevance to the non-domestic supply sectors is the operation of the transfer process, through which customers switch from supplier to supplier. This is an important mechanism to support effective competition in supply markets. Further details are provided on this process in Appendix 1.
- 3.54. If a non-domestic customer wishes to switch from their existing gas or electricity supplier, they must give the supplier sufficient notice of their intention to terminate the contract. In the non-domestic markets, the minimum period of notice that the customer must provide to their supplier is determined in the contract – unlike the domestic gas and electricity supply sectors, there is no minimum standard period of notice that applies. Suppliers and customers have generally agreed termination-notice periods that range from one month up to three months and in some cases even longer.
- 3.55. The principal parties in the transfer process are the customer, the incumbent supplier and the proposed new supplier. In addition, the network operator (Transco in the non-domestic gas market and one of the Distribution Network Operators (DNOs) in the electricity market) plays an important role as a conduit of information between these parties.
- 3.56. In the gas and electricity supply markets, the transfer process can be long and complex, involving communication between several parties. For example, in the context of electricity, Gemserv has noted that a feature of the electricity transfer process is that *“the complexity and in-built time constraints often results in many supplier organisations having to set their Supply Start Date (SSD) a minimum of 20 days in the future, despite next day transfers being theoretically possible”*.¹⁶

¹⁶ “Gas and Electricity Customer Switching - Understanding the Problems, Finding the Solutions”, Gemserv, May 2003.

3.57. The discussion in this chapter has covered a number of areas, providing a background for the analysis of the non-domestic gas and electricity supply sectors in Chapters 4 and 5. The progress made by previous reviews relevant to these sectors and the findings by the European Commission's benchmarking report indicate regulatory scrutiny and initiatives to promote competition have been ongoing in the GB markets. GB non-domestic gas and electricity supply markets appear to be at a more advanced stage of competition development than those of many other member states and customers have seen the benefits of this. Changes in industry structure indicate the scope for market entry as regulatory barriers have been removed, while it is apparent that the market has also seen some consolidation over time. The discussion of metering and aspects of supplier switching, including the transfer process and objection procedures, provide context for Ofgem's assessment of the role these processes have in facilitating a competitive market and customers' concerns about the weaknesses in these processes.

4. Ofgem's framework

- 4.1. This chapter sets out the framework within which Ofgem has assessed customers' concerns. Ofgem's framework for the application of competition law in the gas and electricity sectors is laid out in the Energy Guidelines for the Competition Act, published in March 2001.¹⁷ That document represents the primary source of guidance for companies seeking to understand the approach that Ofgem is likely to take in any potential competition proceedings, and nothing in this document should be construed as acting as a fetter to Ofgem's discretion in respect of its ability to act as competition authority in any such proceedings. For the purposes of this review, and in the context of specific features of the non-domestic supply sectors, which exhibit a relatively high level of maturity and stability, this document presents analysis concerning the current application of the CA Energy Guidelines. The analysis does not indicate definitive markets for all purposes, but seeks to provide a context within which to evaluate the issues raised in this review only.
- 4.2. The CA Energy Guidelines provide advice and information about the factors which the Gas and Electricity Markets Authority will take into account when considering whether, and if so how, to exercise its powers under the Competition Act. The guideline is not exhaustive. It will be necessary to consider the circumstances of each case on an individual basis, with reference to the guideline.
- 4.3. The approach in this paper seeks to identify the relevant product and geographic markets in the electricity and gas sectors. This permits identification of those competitors capable of constraining existing suppliers' behaviour and therefore provides a context in which to evaluate customers' concerns. The chapter also considers indicators of competitiveness in both sectors.
- 4.4. In considering any specific complaints or an Ofgem-initiated investigation under the Competition Act, Ofgem would undertake a preliminary investigation of the facts including examining the market, the nature of the agreement, whether the

¹⁷ "The Competition Act 1998, The application in the Energy sector", OFT 428, March 2001.

conduct is unilateral and the market position of the party(ies), whilst taking into account the specific facts of the case and using the most up to date market information available at the time of the investigation.

4.5. A detailed discussion of customer concerns follows in Chapter 5.

Product and Geographic markets

4.6. In accordance with the OFT's and the European Commission's guidance on the definition of relevant markets, as well as the CA Energy Guidelines, we consider the relevant product and geographic markets. A relevant product market comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the products' characteristics, their prices and their intended use. The relevant geographic market comprises the area in which the undertakings concerned are involved in the supply and demand of products or services, in which the market conditions are sufficiently homogeneous, thus distinguishing that particular geographic area from neighbouring areas.

4.7. An essential aspect of defining the relevant markets for this review is identification of the range of customer requirements and the capability of suppliers to meet these. Demand substitution¹⁸ is of particular significance since it constitutes a rapid and effective disciplinary force on suppliers of gas and electricity, in particular in relation to their pricing decisions.

Product markets

4.8. In terms of differences between the products of electricity and gas, the European Commission has made such a distinction for purposes of market definition.¹⁹ Ofgem's assessment of the non-domestic sector supports this conclusion for the

¹⁸ An assessment of demand-side substitution is made to consider if significant numbers of customers would switch to substitutes. Supply-side substitution involves an assessment of whether undertakings which do not currently supply a product might be able to supply it at short notice.

¹⁹ Case No IV/M.931 – Neste/IVO, Case No COMP/M.3007-E.ON/TXU Europe Group, Case No COMP/M.2890-EDF/Seeboard.

purposes of this review, which covers small and medium-sized enterprises as well as larger industrial and commercial customers.²⁰

- 4.9. Electricity is used in a range of applications and its versatility is therefore a feature of the product. The exclusive uses of electricity (such as lighting) and its non-exclusive uses (such as production of heat) narrow the extent to which gas and electricity are interchangeable. Substitution between gas and electricity therefore relates only to its non-exclusive uses. Given the expense involved in the production of electricity, often utilising gas as an input, electricity is seen to offer only a weak alternative to gas even for such non-exclusive purposes. The opportunities for switching between utilisation of one fuel and another remain limited due to the high investment costs that would be required by many customers. Bjorner and Jensen offer evidence to support this view in their analysis of substitution between different fuels, based on studies of industrial companies in Denmark.²¹
- 4.10. Ofgem is aware that some larger non-domestic customers have the ability to switch between fuels using installed equipment. For example, in a study by NERA,²² it was estimated that 47 per cent of interruptible gas customers in GB had standby fuel-using equipment available if they needed to switch away from gas to an alternative fuel. However, it was not apparent that a small and permanent increase in gas prices would be sufficient to incentivise such a switch, nor was it apparent from the NERA study that electricity was included in the range of such substitutes for the non-domestic customers considered in this review.
- 4.11. In circumstances where electricity is a viable substitute for gas for some non-domestic customers due to investment in installed equipment, the determining issue is whether a sufficient number of customers could represent a constraint on the market price of gas, or vice versa. Interviews with suppliers suggest this capability is available to only a very small number of the non-domestic

²⁰ Power stations, oil refineries and CHP plants are not considered in this review.

²¹ Bjorner and Jensen, "Interfuel substitution within industrial companies: an analysis based on panel data at company level", *The Energy Journal*, Volume 23, No. 2, April - June 2002. This study was based on industrial companies with more than 20 employees, over the period 1983-1997.

²² "Study to investigate the likelihood of firm load self-interruption in a severe winter - A final report for Transco plc", Prepared by NERA, May 2002.

customers considered in this review. Therefore it appears that those customers who have such a capability might not represent an adequate constraint on prices between gas and electricity in terms of the issues considered in this review.

- 4.12. On the supply-side, the production, storage and transportation characteristics of electricity and gas are dissimilar, requiring different and specific investments. Contracting by retail suppliers for wholesale supply, and the risks of market participation through the balancing mechanisms, appear significantly different between gas and electricity supply.²³ Suppliers must comply with different network code agreements and the system investments required to comply with these codes are materially different.
- 4.13. While there is some potential for demand-side and supply-side substitution between gas and electricity, for the purposes of this review, Ofgem considers that separate product markets for gas and electricity appear justified.

Geographic markets

- 4.14. Determination of the relevant geographic markets for both gas and electricity supply requires an assessment of the extent of any regional difference in the economic conditions of supply of gas or electricity. Where such differences prevent entry that is both rapid and effective, this has implications for a determination of the relevant geographical market. Where differences exist between geographic markets, price movements and other factors may also differ between areas.
- 4.15. Access by suppliers to gas or electricity is achieved mainly through contracts with generators (in the case of electricity suppliers), or with shippers (in the case of gas suppliers). Exchange markets also provide alternatives for suppliers who wish to purchase these commodities.
- 4.16. The infrastructure needed to receive supply is a further consideration. Supply of gas to non-domestic customers is achieved by a GB-wide Transco network of pipes as well as by some independent gas transporters. Access to gas in different

²³ This paper refers to 'risk' in a variety of contexts. There are a number of sources of risk, including balancing risk, commodity risk, business risk and supplier failure risk.

parts of GB would therefore not appear materially different given the common infrastructure.

- 4.17. The National Grid network achieves the same for electricity in England and Wales. However, since privatisation, the Scottish industry has had a different legal, commercial and corporate structure to that in England and Wales. ScottishPower UK plc and Scottish & Southern Energy plc continue to retain generation, transmission, distribution and supply facilities. As mentioned in Chapter 3, their generation businesses control, directly or by contract, almost all of the generation sources in Scotland, as well as the bulk of the interconnector capacity with England and Wales. Furthermore, each generation company retains, under its licence, a monopoly over balancing and settlement arrangements in its own area.
- 4.18. The same licensing regime applies to the electricity supply sector in England and Wales, and in Scotland. Following the introduction of standard licence conditions issued under the Utilities Act, these standard conditions now apply across GB. Ofgem's own analysis of generation agreements with the Scottish transmission companies indicates that a number of suppliers, some of which are new entrants in England and Wales, also supply non-domestic customers in Scotland. This might suggest there are no material differences in the economic conditions between the geographic markets of England, Wales and Scotland.
- 4.19. However, while there are non-domestic suppliers that have begun to supply customers in the Scottish region, there is a strong counter argument that differences in the historic structure of the industry and aspects of the regulatory regime applying there are sufficient to warrant the definition of a separate geographic market for the supply of electricity. As discussed in Chapter 3, a large part of Ofgem's work under the BETTA project is directed towards altering the structure of the Scottish electricity market, especially its governance, in order to increase the level of competition in the supply of electricity (to both domestic and non-domestic customers). Therefore, while the economic conditions applying in Scotland, compared to England and Wales, are different, there are questions over whether they are significant, and specifically whether they would warrant the definition of a separate geographic market for the supply of electricity to customers in Scotland.

4.20. On the provisional basis that a GB-wide market exists for supply to non-domestic electricity and gas customers, potential product markets are discussed below.

Potential product markets

4.21. In the evaluation of product markets, this section considers customers' economic characteristics pertinent to each potential market and the implications for customer alternatives in terms of gas or electricity procurement. On the demand side this would include the importance of gas or electricity to the business, the resources employed to procure energy from a supplier and procurement options available to the consumers. The ability of suppliers to serve customers with different requirements, their route to market and the potential opportunities for new entrants form the basis of further assessment.

4.22. Customers seek a number of services from suppliers of gas and electricity. These include:

- demands for energy
- metering services
- financial services, for example risk management
- green power
- energy efficiency services
- infrastructure development and maintenance, and
- pricing analysis, where a number of pricing alternatives are available for gas²⁴ as well as for electricity.²⁵

²⁴ For gas, in addition to standard pricing (tariff), the range of indexed price contracts includes:

- Day-Ahead (D-1) – The price of gas is determined by the arithmetic average of all the day-ahead prices from Monday to Friday, as published on Friday during the supply month
- Day-Ahead Cumulative Index (D-1) – The price of gas is determined by the final cumulative day-ahead index price, which is a volume weighted average, calculated from the day-ahead index prices quoted from Monday to Friday throughout the supply month
- Within-Day Cumulative Index (D) – The price of gas determined by the final cumulative within-day index price, which is a volume weighted average calculated from the within-day index prices quoted from Monday to Friday throughout the supply month
- Indexed deals – Where prices are linked to the wholesale market price, and
- Matrix pricing – where options for tranche buying at frequent intervals to take advantage of price fluctuations are available.

²⁵ For electricity contracts, in addition to standard pricing (tariff), a differentiation can be made between a contract that is a fixed rate or is market related. Fixed rate contracts tend to include the cost of energy including transmission and distribution losses, transmission and distribution use of system charges,

- 4.23. A number of alternative supply arrangements therefore exist in the non-domestic sector, ranging in complexity from one-off, non-negotiated, standard-form contracts requiring little ongoing customer participation, to more complex agreements, where more active participation and greater investment in energy procurement resources by the customer is required.
- 4.24. While such agreements differ in terms of their key characteristics, this alone is not sufficient for the purposes of defining the relevant market, since the main criterion is substitutability from the perspective of the customer. It is therefore relevant to consider the ease with which non-domestic customers can switch between different supply arrangements. Bespoke contracts require greater investment on the part of the customer, both during contract negotiation and in many cases throughout the course of the contract. This need not be undertaken by the customer, as in many cases customers can contract this function out. However, some investment in this area is required, and the extent to which a customer derives a net benefit from such investment provides an indication of the range of supply agreements that are genuine alternatives to them.

The GB small non-domestic electricity market

Demand-side

- 4.25. A predominant driver of demand for electricity by small non-domestic customers is to support the functioning of the business. This contrasts with its use as a direct input to the production of a firm's products or services. One or more features of electricity usage contribute to a reduced need for more dedicated electricity purchasing resources among this class of customer, in which case they typically receive supply through more standard forms of agreement. Relevant features are:
- the level of consumption of such firms is not sufficiently large to warrant a higher profile in terms of investment in procurement resource

settlements, the cost of Fossil Fuel Levy and the cost of the Climate Change Levy. An energy only (market related) contract tends to include the cost of energy plus transmission losses, with all other costs charged at pass-through.

- lower and more predictable flows of electricity, where supply contracts are less relevant to day-to-day consumption decisions,²⁶ and
- a relatively low level of control over consumption profiles, often accompanied by low levels of information on consumption patterns.

4.26. Research by Goett, Hudson and Train into non-domestic customers in the US²⁷ suggests that smaller customers have a negative reaction to variable rates, preferring fixed rates as a rule.²⁸ Seasonal time-of-day rates were found to be attractive to these customers only when fairly large discounts were offered to a fixed price. Such research provides some insight into the extent of the incentives needed before smaller customers will regard more complex supply agreements as real alternatives to standard supply agreements. This is supported by Littlechild's observations of the UK electricity market,²⁹ where he notes that demand for contracts based on variable rates has been relatively low for non-domestic customers, particularly for smaller businesses.

4.27. Most electricity suppliers to customers in this market price according to standard rates, or according to a standard pricing formula. Ofgem understands that suppliers generally have mass market teams that are responsible for producing standardised prices for the different consumption bands that are applied to non-half hourly customers on meter profile classes three to eight.³⁰

4.28. Customers with meter profile classes three and four are among the lowest consuming customers in the non-half hourly sector and tend to be on standard contracts with prices set at a standard rate. Customers on meter profile classes five to eight tend to have larger energy bills and may be offered standard contracts, but with prices based on a pricing algorithm where a standard set of

²⁶ Lighting, powering of office equipment and other supporting appliances are likely to be the predominant purposes for electricity consumption by this class of customer.

²⁷ It is possible that some factors may be more relevant to non-domestic customers in the US compared to those in GB, and these findings are therefore considered as indicative only.

²⁸ Goett A, Hudson K, and Train K, "Customer's choice among retail energy suppliers: the willingness-to-pay for service attributes", *Energy Journal*, Volume 21, No. 4, March 2000. Small and medium-sized customers were defined as businesses that had between 5 and 99 full time employees.

²⁹ Littlechild S, "Competition in Retail Electricity Supply", Cambridge-MIT Electricity Project Working Paper 09 /, University of Cambridge Department of Applied Economics WP 0227, September 2002.

³⁰ There are eight profile classes, which are used as a means of dividing non-half hourly customers into sub-groups according to the quantity and pattern of electricity that they consume. Profile classes one and two are generally for domestic customers, while classes three to eight are for non-domestic customers.

load profiles is used to derive the price. Ofgem is not aware of any material restriction on non-domestic customers at the lower end of the non-half hourly market seeking supply agreements based on load profiles rather than standard rate contracts. It is also not apparent that supply contracts are materially different between these two customer groups and they are therefore considered a single economic market for the purposes of this paper.

- 4.29. It is necessary to consider the circumstances in which customers within such a single economic market might substitute standard contracts for bespoke contracts. An approach to evaluating the extent of alternatives available is to consider customer response to a small (5 to 10 per cent) and permanent price increase in a product. This approach is consistent with European Commission and OFT guidelines on defining markets, as well as in the CA Energy Guidelines, and is used in this paper. Where there is an expectation that despite such a price increase, a customer would not consider alternative supply agreements as viable choices, these alternatives would not be included in the relevant product market.
- 4.30. In the electricity sector, different supply agreements place differing demands on customer resources. Deriving the benefits of more bespoke supply arrangements therefore incurs a cost which standard contracts do not.
- 4.31. The range of potential supply arrangements available to smaller electricity customers would appear constrained by the costs of participating in more bespoke arrangements, where these place greater demands on customer resources than the benefits of more accurate measurement and billing. It is consequently feasible that supply of electricity through contracts based on standard rates or load profiles could constitute a separate product from supply of electricity through bespoke contracts for this class of non-domestic customers, which we shall refer to as the 'small non-domestic electricity market'.
- 4.32. Ofgem is aware that Datamonitor considers that, in broad terms, levels of consumption above 200MWh a year are generally associated with more dedicated investment in electricity procurement. This suggests that below this threshold, in general, customers may be less inclined to devote resources to

more bespoke supply arrangements as the trade-off between the costs and benefits of doing so are not favourable.

- 4.33. In considering domestic customers and customers in the small non-domestic market, it is apparent that the smallest non-domestic customers are comparable to some domestic customers in terms of consumption levels. However, they may be less comparable in their approach to decisions about supplier choice or terms and conditions. The economic considerations of a domestic customer may be dissimilar to those of a non-domestic customer where the latter regard electricity as a cost of business which is passed on to final consumers – a consideration not relevant to domestic customers. Also a number of the smallest non-domestic customers operate from rented premises under a single landlord who may make decisions about supplier choice at a more aggregated level.

Supply-side

- 4.34. Assessment of supplier substitutability requires an appraisal of the potential for suppliers who do not currently supply small non-domestic customers, to enter the market at short notice.³¹ Consideration must therefore be given to the ease with which suppliers to larger non-domestic electricity customers or domestic customers can supply the small non-domestic market, either by utilising their existing strategic assets, or by investing in new assets. An assessment must also be made of the potential for new entry.
- 4.35. In general, the small non-domestic customer market is characterised by a mass marketing approach. The need to aggregate revenue across a large number of customers, given the inefficiencies of serving customers with similar purchasing characteristics through a more customised method, is one reason for this approach. A further reason relates to customer awareness. Small non-domestic customers' awareness of supplier offerings appears to come from less direct methods of marketing, such as mass-market advertising and branding. The research by Goett, Hudson and Train cited above also supports the view that brand strength is an important factor in this market. They found that brand familiarity was the highest valued attribute in pricing and contractual terms. It is

³¹ For purposes of this review a period of one year appears reasonable.

relevant that a company's brand can also limit its ability to compete in certain segments of the market, since it may risk over extending its brand.

- 4.36. The approach adopted by suppliers in costing for small non-domestic customers, where these customers are generally priced from a common reference price, further supports a view that supply in this market is one where a standardised approach is the norm.
- 4.37. Back-office systems that support the acquisition and servicing of such customers, including meter consumption data, billing systems and customer support, must cope with high volumes of customer data processing. Such assets would appear more similar to those needed to support supply in the domestic market than those required to support larger customers with more bespoke supply arrangements.³²
- 4.38. Regulation also contributes to differences in competitive conditions of supply between domestic and non-domestic classes of customer, where domestic customers have historically benefited from a greater level of regulatory protection than other customers. Interviews with suppliers suggest that suppliers' businesses tend to be organisationally divided between these two broad customer groups.
- 4.39. In terms of supply-side substitutability, the importance of brand, differences in marketing, standardised pricing, requirements for back-office systems capable of processing high volumes of information, and differences in organisational structures serving domestic and non-domestic customers are material to supply substitutability in the small non-domestic electricity market.

Conclusion

- 4.40. A provisional conclusion is that non-domestic consumption below 200MWh a year provides a broad upper threshold for non-domestic customers with comparable economic characteristics, in particular with a similar range of alternative supply arrangements available to them. It is emphasised that this

³² Ofgem understands that the service support teams for small and medium-sized customers can, however, be different from the teams used to support domestic customers.

threshold is taken only as a provisional means of drawing a distinction between customers and the choices available to them. Any single measure will have limitations in terms of the correct level as well as its ability to singularly encompass customer groups. However, Ofgem has not discounted the possibility that the small non-domestic electricity market is part of a broader market. Therefore this chapter also considers indicators of competition both on the basis of a separate market and also in combination with other markets.

The GB medium non-domestic electricity market

4.41. This section assesses the characteristics of customers who do not fall within the small non-domestic market.

Demand-side

4.42. In common with small non-domestic customers, these customers require electricity to support the functioning of their business. However, the scale of consumption for support purposes is greater due to the larger scale of the firm. Since the size of a firm generally bears a strong relation to the level of electricity consumed for support related functions, this has implications for the level of expenditure of these medium non-domestic customers. The degree of control over consumption is also relevant to the incentives to invest in energy management.³³

4.43. The purposes for which electricity is used by these customers can also differ from that of small non-domestic customers. Electricity demand by a number of the medium non-domestic customers is for powering dedicated applications. Processes consuming large quantities of electricity, such as those employed in production machinery in the manufacturing sector and the use of ovens in the food manufacturing sector, are typical of applications that can materially alter the level and pattern of a customer's electricity consumption. Greater control over the timing and length of operation is therefore potentially available in these

³³ Consideration of the incentives on customers to invest in energy management and procurement resources based on volume of consumption alone is likely to be overly simplistic. In particular, the degree of management control over consumption is also relevant and not necessarily proportionate to volume of consumption.

circumstances, due to the more specific nature of consumption.

- 4.44. Given the scale of electricity costs, and in many cases the greater scope for controlling consumption patterns by those customers with dedicated applications, incentives exist to invest in more dedicated energy procurement resources to secure competitive supply as well as manage total electricity costs. This in turn has implications for the scope of supply agreements that offer genuine alternatives to such customers.
- 4.45. The approach taken in considering the small electricity market is used here, where an evaluation is made of the extent of alternatives available based on likely customer response to a small (5 to 10 per cent) and permanent price increase in a product.
- 4.46. In assessing this question for electricity customers not in the small non-domestic market discussed earlier, an assessment of the limitations on a customer's ability to choose between supply agreements of varying complexity (and therefore demanding differing levels of customer resource) is relevant.

Non-half-hourly and half-hourly metered customers

- 4.47. One possible restriction on choice of supply arrangement available to such customers is between non-half hourly and half-hourly metered sites. Such a distinction is essentially concerned with the availability of consumption information to inform decision making. Supply agreements that require information on a more frequent basis potentially exclude non-half hourly metered sites, unless the customer is willing to pay to have half-hourly meter monitoring installed.
- 4.48. In considering whether such a distinction is justified for purposes of this review, examination of the economic characteristics of customer sites above and below the 100KW maximum demand³⁴ threshold, as well as the feasibility of switching by customers from non-half hourly to half-hourly meters, and vice versa, is necessary.

³⁴ Non-domestic customers are required to have half-hourly monitoring of their consumption if they have maximum demand in excess of 100KW.

- 4.49. Given the high frequency of reads required for half-hourly monitoring, there is a requirement for frequent consumption reporting, such as dial-in access. Ofgem understands that non-half hourly meters have an installed cost in the region of £30 or less, whereas the cost of half-hourly meters ranges between £600 and £1,000 per meter.
- 4.50. A meter provides information and services, and the parties utilising these are distributors, suppliers and customers. Distributors have an interest in the load patterns on their network for use in system control and design. Suppliers are interested in consumption and usage patterns for trading, billing and pricing design. This data may also be of interest to customers in determining usage patterns (such as for energy efficiency purposes).
- 4.51. Customers who have replaced non-half hourly meters with half-hourly meters have told Ofgem that they have derived several benefits:
- energy management is a benefit facilitated by higher frequency of information on consumption patterns which is also available remotely³⁵
 - the ability to base bills on customers' own meter reads (with some auditing by suppliers),³⁶ and
 - a relatively lower price charged by the supplier reflecting the benefit, for example, of better information in terms of its exposure to balancing risks.
- 4.52. The cost savings from these benefits are considered areas where significant gains arise from switching to half-hourly metering. Furthermore, the opportunity to resolve issues surrounding the poor quality of data in the 'supplier hub' and the accuracy of meter reads is cited as a significant incentive.
- 4.53. In terms of timescale, interviews with customers who have made such a switch suggest that the financial costs of doing so can be outweighed by the benefits

³⁵ This allows for greater transparency of consumption generally, but also facilitates a central role for an energy management function that is not restricted by location, given remote access to metering data.

³⁶ The lower level of detail from non-half hourly meters is believed to reduce the accuracy of bills and introduce greater scope for error, in particular where a number of customer sites are involved. Reducing the practice of estimated reads or the frequency of costly meter reads is cited as a related benefit of half-hourly meters.

within a relatively short timescale. This suggests the switching costs for non-half hourly metered customers moving to half-hourly metering may not be significant, particularly for those with electricity spend at levels that allow for recovery of costs within one year.³⁷

- 4.54. On the provisional basis that a distinction between non-half hourly and half-hourly metered customers is not of itself a relevant economic distinction for the purposes of this review, an assessment is now made of the nature of supply agreements across the spectrum of non-domestic electricity customers beyond those typical of the small non-domestic market.

Contracts

- 4.55. An analysis of a sample of contracts shows a correlation between greater volumes of electricity used and the variety and complexity of negotiated variables of the supply contract, with customers who use less electricity tending to have fixed contracts. However a material number of customers at the lower end of this market, in terms of electricity consumption, do have energy-only contracts. This suggests that customers in this market may exercise the choice to substitute between the fixed and energy-only contracts available. On this basis, customers within this market do not appear to have any difficulty in negotiating supply across a range of contract options.

Supply-side

- 4.56. In terms of perception, while the risk associated with being supplied by less established suppliers is a relevant consideration to these customers, based on analysis of supply agreements available to Ofgem, it appears that new entrants are able to acquire fairly significant volumes of business in this market. Supplier brand strength is therefore not expected to feature as prominently in this market compared to the domestic or small non-domestic customer markets. In terms of managing customer relationships, a more individualised service is evident in this market, typically through an account manager.

³⁷ At present under the terms of the Balancing and Settlement Code, electricity customers that already have half-hourly metering equipment installed are not formally able to switch to become non-half hourly customers. BSC modification P124 will remove this barrier to switching.

- 4.57. Supply risk appears to be a material factor in participating in this market, where a larger scale of consumption combined with unpredictable consumption patterns can expose suppliers to potentially large imbalance charges. However, there are options open to suppliers to reduce some of this risk contractually by passing some of this through to customers, or by acquiring the necessary expertise to manage such exposure.
- 4.58. Given what appear to be relatively few non-regulatory limitations to entry for suppliers in the medium non-domestic electricity market, Ofgem has considered whether the time period involved to pass regulatory entry testing is significant.
- 4.59. The entry process test procedures undertaken by bodies such as Elexon and Gemserv are aimed at testing suppliers in conjunction with their agents and apply to suppliers, data aggregators, data collectors and meter operators. Entry process tests are designed to show that the supplier hub systems, business processes and staff can perform according to the requirements of the trading arrangements for registered metering systems. Typically, testing takes between six and eight weeks for a supplier operating with agents who have previously undertaken entry process testing with another supplier. New agents would typically extend this period to 12 or 13 weeks. Such time periods are not considered significant for market definition purposes.

Conclusion

- 4.60. This review suggests that, in addition to the small non-domestic market, a further customer market³⁸ may be defined encompassing those non-domestic customers with an extended range of bespoke supply alternatives that include energy-only and fixed contracts. These require greater investment of energy procurement resources to acquire and manage such supply agreements by the customer, but the costs of doing so are compensated by the benefits in terms of energy management control and lower energy prices, for example. Such benefits do not appear realisable to the same extent from contracts based on standard rates or load profiles typical for customers in the small non-domestic electricity market. The presence of account managers who are often required to have an

³⁸ Indications are that the relevant consumption levels may be broadly above 200MWh a year.

understanding of the customer's energy needs and the issues related to managing risk exposure appear different to those aspects of supply evident in the small market.

The GB large non-domestic electricity market

Demand-side

- 4.61. Some non-domestic customers consume quantities of electricity at a scale that represents the single largest input cost to their business and presents these customers with a unique exposure to electricity prices. Typically large scale mining and other extraction industries, cement manufacturing, steel manufacturing and large timber plants fall into this category of customers.
- 4.62. Research conducted by Datamonitor for Ofgem suggests that where electricity consumption levels assume such levels of importance, investment in resources in energy management may be different from other non-domestic customers in terms of team size as well as expertise. Analysis by Ofgem of a sample of industry contracts suggests the levels of consumption of customers in those sectors where energy consumption is a dominant feature of operating costs may extend above 30GWh a year. Ofgem has therefore considered whether a class of customers at this upper consumption band of the non-domestic electricity sector might comprise a separate market.
- 4.63. Given the greater level of resource and the extent of expertise within the energy procurement teams of this class of customer, Ofgem has considered whether potential substitutes, in terms of electricity supply, may be available to these customers that are unavailable to customers in other electricity markets discussed in this paper.
- 4.64. One such alternative is the ability to connect directly to the transmission grid, thereby avoiding distribution use of system charges. Exercising this option may offer net benefits, depending on the capital cost of establishing the connection to the transmission network. However, industry experts have suggested that, of itself, this is unlikely to offer a significant benefit to this class of customers.

- 4.65. A further alternative open to larger customers with large scale buying resources is to reduce or exclude the role of the supplier, thereby avoiding associated costs. However, the commodity risk that customers would incur in buying electricity wholesale is considered a major constraint to this alternative. Management of this risk requires investment in risk management systems, energy trading personnel and technology. This represents a substantial upfront cost, and consultation with industry players suggests this is a prohibitive cost even for the largest electricity customers. While exceptions are evident, with some customers having energy trading arms, these have had previous commodity trading experience that could be drawn on - a position other larger buyers do not share.
- 4.66. A third alternative is the option to outsource trading and risk management. However, the recent exit from the GB market of a provider³⁹ of such services suggests the number of customers that presently consider such an alternative as feasible is not significant.
- 4.67. If the above are not viable alternatives for these customers, it may be argued that their economic characteristics are not materially different from customers in the medium market.
- 4.68. It is therefore not clear whether this class of customer constitutes a separate market in terms of their demand-side characteristics. However, certain unique aspects (in particular greater negotiating leverage and volume of consumption), mean that it is possible that there is a limit on the number of suppliers that can meet these customers' demands given issues of scale, risk and access to generation capacity.

Supply-side

- 4.69. Interviews with suppliers suggest many do not consider the highest consuming customers in the electricity sector as a group suited to their own capabilities.

³⁹ Vattenfall entered the UK market in 1999 offering trading and risk management services to small independent players. It was considered the holder of the largest contract in the UK for outsourcing of trading and risk management. Vattenfall AB, Stockholm recently announced that the company will discontinue its trading services activities in the UK power market.

This is driven by the low level of value-added services that suppliers can provide generally to such customers, together with the risk exposure, given the volumes of electricity demanded.

- 4.70. Relative to other customers, suppliers to these customers face a particular source of business risk in terms of balancing demand with supply given the scale of consumption. To offset some of this risk, suppliers will often contract with a generator to meet the specific demands of these customers, rather than meet such demands out of generation capacity secured through existing contracts. Such behaviour supports the view that the inclusion of such customers into a supplier's portfolio presents a unique source of risk.
- 4.71. Ofgem notes from the sample of contracts available that relatively fewer suppliers appear to operate at this end of the electricity market compared to other markets discussed. The absence of suppliers who are either not ex-PES suppliers or vertically integrated to upstream generators (mainly those generators that entered the market after privatisation) is apparent.
- 4.72. While a degree of hedging is available to suppliers, other features associated with supplying these customers indicate that suppliers do face significant risks in serving this end of the non-domestic sector. These include issues related to customer retention, since customers are capable of moving substantial volumes of business with relatively fewer obstacles to switching, since the number of sites involved is often low.
- 4.73. Given the above analysis, there may be a limit to the number of suppliers able to serve this class of customer, due to some of the potentially unique pressures faced in serving this market. However, on the demand-side this may not be a meaningful distinction between these and customers in other markets. Therefore, in the assessment of market indicators at the end of this chapter, Ofgem will consider this market separately as well as in combination with other markets.

The GB small non-domestic gas market (firm)

Demand-side

- 4.74. The demand and supply-side characteristics of small non-domestic gas customers are similar to those of small non-domestic electricity customers covered earlier in this paper. Since many of the points raised in that section are valid here, a detailed analysis is not repeated but only covered briefly in the following discussion.
- 4.75. Ofgem's discussions with industry participants suggest that the majority of demand for gas by small non-domestic customers is for heating purposes. In terms of regular estimated billing, reliable gas supply and general customer support, service levels appear adequate for the needs of such customers. Incentives to acquire bespoke supply terms are generally outweighed by the relatively lower priority attached to energy consumption and the costs, in terms of management time, of doing so. In common with electricity, the importance of brand awareness and the extent of savings required before these customers are motivated to seek more bespoke alternatives to standard supply agreements are therefore a factor in defining the relevant market.
- 4.76. Ofgem understands that gas suppliers do not offer pricing based on standard load profiles as is the case for electricity customers on meter profile classes five to eight, since gas prices do not change on a half-hourly basis. Standard rates are therefore the norm for non-daily metered gas customers.

Supply-side

- 4.77. In common with the small non-domestic electricity market, back-office processes such as billing and invoicing systems that cater for high volume processing, and the economies of scale of a standardised marketing approach, would seem to outweigh the benefits derived from providing such customers with a more bespoke service.
- 4.78. In conclusion, as with the small non-domestic electricity market, the level of consumption appears to be a determining influence in terms of the economic incentives for customers to invest resources necessary to support more bespoke

supply arrangements. Customers consuming gas up to around 50,000 therms a year appear to face comparable costs to the upper limits in the small non-domestic electricity market and this upper threshold is taken as a provisional means of delineating this customer group. It is emphasised that this threshold is taken only as a provisional means of drawing a distinction between customers and the choices available to them. Any single measure will have limitations in terms of the correct level as well as its ability to singularly encompass customer groups.

- 4.79. While, for purposes of this review, Ofgem considers this small non-domestic gas market to be separate, Ofgem has not discounted the possibility that this market is part of a broader market. Therefore, this chapter also considers indicators of competition both on the basis of a separate market and also in combination with other markets.

The GB medium non-domestic gas market (firm)

Demand-side

- 4.80. In the industrial sector, the main uses of gas are for direct process heat, space heating, water heating, steam raising, on-site electricity generation (usually in combined heat and power schemes), and as input for manufacturing ammonia or methanol. The commercial sector comprises schools, hospitals, shops, offices, public buildings, hotels and restaurants. In both sectors, those entering into firm gas supply contracts also require a fuel which is clean and readily controllable, for use in processes where the fuel's quality and reliability of supply are the primary considerations.
- 4.81. Examination of a sample of the industry contract details of firm gas customers with demand levels over 50,000 therms a year suggests a variety of bespoke contractual agreements are available. This review has therefore assessed whether a product market may exist where customers share a similar range of substitutes when acquiring a supply of gas that are not available to customers in the small gas market. In considering this issue, an assessment of the limitations on a customer's ability to choose between supply agreements of varying

complexity (and therefore demanding differing levels of customer resource) is relevant.

Non-daily metered and daily metered sites

- 4.82. Based on research commissioned by Ofgem, it appears that suppliers do not generally offer bespoke supply agreements to non-daily metered sites. While customers with meters consuming more than 2 million therms are required to have daily meters installed, customers below this level do have the option to install daily meters. Ofgem has therefore assessed the ease with which non-daily metered customers can substitute for daily read meters.
- 4.83. It appears that the costs of making such a switch are comparable to replacing non-half hourly electricity meters with half-hourly electricity meters (ie up to £1,000). Some of the benefits of more bespoke supply arrangements may be lower given the lower frequency of demands for information needed for gas balancing purposes. However, it appears that energy management and issues relating to more efficient meter reading processes are just as relevant to the gas sector as the electricity sector, and that the recoupment period is likely to be comparable to that in the electricity market.

Contracts

- 4.84. Ofgem has also carried out an analysis of the association between the greater volume of consumption of a site and the form of supply contract, to identify any potential delineation between customer groups in this market. This analysis shows a correlation between greater volumes of gas consumed and increased variation and complexity of negotiated elements within the supply contract. Customers using less gas tend to have fixed contracts. However, the survey suggests that a material number of customers using lower amounts of gas do enter into a range of price-indexed contracts. This suggests that customers in this market can alternate between a wide range of alternative supply arrangements. The survey did not identify any material limitations within this class of customers in terms of their ability to secure alternative supply arrangements.

- 4.85. There is therefore little evidence available to Ofgem to suggest that demand-side attributes place any significant constraints on the ease with which customers in this market can switch between the range of contracts available.

Supply-side

- 4.86. Gas suppliers are subject to daily balancing obligations. Compared to the obligations under a half-hourly balancing regime (for electricity customers), a daily balancing regime reduces the complexity and risk of serving medium-sized gas customers.
- 4.87. However, wholesale gas prices tend to be more volatile than wholesale electricity prices over a longer period. Fixed price contracts therefore involve commodity risk for the supplier, who will need to manage risks specific to the gas industry given the nature of upstream markets. While the frequency of gas balancing is lower than the electricity sector, the volumes involved do require management of imbalance risks.
- 4.88. From this Ofgem concludes that potential suppliers do face some constraints on the effectiveness and immediacy of their ability to present additional competition to incumbent suppliers. However, it is apparent that entry into the medium non-domestic gas market is feasible, and therefore Ofgem will consider this market separately and in combination with other markets in assessing indicators of competition later in this chapter.

The GB interruptible non-domestic gas market

Demand-side

- 4.89. At present a customer with a supply point that has daily metering and annual consumption in excess of 5.86GWh (200,000 therms) can apply for interruptible status for that supply point. These non-domestic customers are therefore among the largest gas consumers in the sector.
- 4.90. Suppliers interviewed have suggested the economic characteristics of generators may be different from other customers in this market given the fact that they are producers or processors of other energy sources, and that in some cases they

routinely arbitrage between gas and electricity prices. To this extent, the nature of their supply agreements may differ materially from those of customers currently considered in the interruptible market. Despite the fact that in some respects (for example, the scale of their consumption), generators are not obviously different from some other customers, they are consequently not considered within the following assessment.

- 4.91. The primary use for gas by customers considered within this market is for space heating, water heating, manufacturing of products and processing of products.⁴⁰ Applications such as direct process heat, for example, require only crude bulk heat, where a continuous supply of fuel is not always required.⁴¹ Given these uses, production levels are likely to influence demand levels for gas, but other factors such as weather and gas prices may also alter patterns of demand.
- 4.92. The volume of consumption by such customers is expected to place them in a strong negotiating position with suppliers relative to other customers, given the amount of business they represent. Also, since these customers often have the scale to undertake functions such as energy management, risk management and wholesale market monitoring, participation in these areas may be less difficult than for other customer groups. The value attached to some of these services provided by suppliers may therefore be reduced for this class of customer.
- 4.93. These customers also receive a standard exemption from capacity charges. This enables a supplier to provide a discount against the prices charged to other large gas customers on firm supply contracts. In addition, since the supplier has the option of requesting a customer to reduce or stop consumption of gas for a time, exposure to imbalance penalties and peak prices is consequently reduced and is therefore less of a factor in a supplier's cost consideration.

⁴⁰ Other applications include cooking/food production, drying and/or treatment of products and product cooling/refrigeration.

⁴¹ For example, direct drying in the food industry, the heat treatment of metals and the manufacture of glass and ceramics.

- 4.94. A related characteristic of demand is the importance placed on the supplier's track record. Given the extent of their dependence on gas, these customers may exhibit a degree of risk aversion in contracting with suppliers they perceive might place their business at relatively higher risk in this respect.
- 4.95. Interruptible customers are expected to derive a number of significant discounts relative to other customers as a consequence of their scale, flexibility of consumption and support needs. This view is supported by the sample of industry contracts available to Ofgem, where firm prices are significantly higher than interruptible prices. There is therefore some basis for the view that such customers may be different in some respects from customers in the medium gas market.

Supply-side

- 4.96. In order to assess whether the interruptible market may be separate from the firm supply market, Ofgem has assessed the potential response to price rises in the interruptible market by suppliers in the firm supply market. The ability of suppliers to respond to small and permanent price increases has therefore been evaluated.
- 4.97. The importance of price in this market appears to favour very large scale suppliers, who can profitably deliver high volumes to customers with strong buying-power. At present, compared to other narrow markets discussed, relatively fewer suppliers serve this market, and suppliers affiliated to oil-producing majors feature more prominently than in other product markets. According to suppliers interviewed, much of this may be due to transaction cost advantages these suppliers may have, given their relationship with their upstream division. If these advantages are material, suppliers without upstream interests or an established market presence may offer less of a competitive restraint to suppliers already operating in the market.
- 4.98. A further supply-side consideration is the degree of risk posed by serving customers of such scale. The study by NERA in 2002 of large non-domestic customers (consuming 200,000 therms and above) and the likely demand response by them in a severe winter, given increases in associated gas prices, discusses the differences in the effects on suppliers and customers. The NERA

study is relevant to understanding the scope for a supplier, given the high volumes involved, to offset some of the risks posed by serving such large consumers of gas.

- 4.99. NERA's conclusion is that, in such an event, those on interruptible contracts are likely to be affected more than other customer groups since their contracts are less likely to be fixed-price contracts. However, due to the limited amount of spot indexation and the limited interruptibility, both in the number of firms that can be interrupted and in the length of interruptible periods, suppliers could in fact suffer a greater impact in a severe winter. On the basis of this survey it appears that while some interruptible customers do have properties that offset some of the risks for suppliers, these may be limited in their extent. Risk is therefore considered a material factor for suppliers and their ability to absorb such risk is a prerequisite for effective participation in this market.
- 4.100. Evidence available to Ofgem suggests that affiliation to substantial wholesale upstream gas producers can offer suppliers some advantages, such as a reliable upstream source of gas. Sufficiently large financial resources to offset risk are also an important requirement to serve in this market and therefore large scale suppliers with an established market presence would appear to offer a source of supply-side substitution. However the evidence available to Ofgem is not conclusive about whether these features are materially different between firm and interruptible customers to prevent suppliers to firm customers from offering an effective and immediate constraint in the event of a small and permanent change in relative prices to interruptible customers.
- 4.101. If the demand characteristics of interruptible customers are sufficiently similar to customers in other markets, this market may be considered to be part of a broader economic market. Ofgem will, therefore, consider this market separately and in combination with other markets in its analysis of market indicators below.

Indicators of competitiveness

4.102. This section provides statistics relevant to the competitiveness of the gas and electricity sectors. Suppliers have provided information in response to an information request by Ofgem. Where suppliers have not been in a position to provide data in the categories set out, approximations have been made based on available sources.

4.103. The section considers market shares, concentration, prices and market entry. Market shares and pricing information should only be considered as preliminary indicators and, if relevant, others factors may be considered for purposes of assessing such areas in future reviews or investigations.

Market shares, concentration and prices

4.104. Table 4.1 below provides details of market shares and Table 4.2 provides details of the average energy-only prices paid by customers.

Table 4.1 Market Concentration⁴²

Electricity	Small Market: Below 200MWh	Medium Market: 200MWh - 30,000MWh	Large Market: Over 30,000MWh	Combined medium and large market	All combined
Aggregated share of top 3 suppliers	57%	65%	81%	67%	64%
Aggregated share of next 3 suppliers	35%	29%	19%	28%	26%
Aggregated share of top 6 suppliers	91%	95%	100%	95%	91%
Other suppliers	9%	5%	0%	5%	9%
HHI	1547	1802	3353	1805	1670

Gas	Small Market: Below 50,000 therms	Medium Market: Over 50,000 therms	Interruptible Market	Combined medium and interruptible	All combined
Aggregated share of top 3 suppliers	72%	56%	59%	52%	49%
Aggregated share of next 3 suppliers	16%	22%	32%	32%	32%
Aggregated share of top 6 suppliers	88%	78%	91%	84%	81%
Other suppliers	12%	22%	9%	16%	19%
HHI	2010	1413	1758	1319	1266

Source: Suppliers

⁴² Suppliers provided Ofgem with information on volumes of energy supplied during 2002 and the number of meters registered as at the end of 2002. Due to the quality of meter data available, Ofgem's analysis is based purely on market shares by volume, not by meters. Where data has not been provided, other data sources have been used in conjunction with available information from suppliers to estimate market shares.

Table 4.2 Average Price⁴³

Customer type	Energy – only (Average Price)		
	Separate markets	Combined medium and large markets	All combined
The GB small non-domestic electricity market	£41 /MWh	£41 /MWh	£30 /MWh
The GB medium non-domestic electricity market	£27 /MWh	£26 /MWh	
The GB large non-domestic electricity market	£20 /MWh		
The GB small non-domestic gas market	36 p/therm	36 p/therm	26 p/therm
The GB medium non-domestic gas market	24 p/therm	22 p/therm	
The GB interruptible non-domestic gas market	21 p/therm		

Source: Suppliers

4.105. Table 4.1 provides details of market share based on the information provided by suppliers. A further breakdown of market share is provided in Appendix 4. The table also contains calculations of the Hirschmann-Herfindahl Index (HHI) for the potential customer segments identified in this chapter.⁴⁴

4.106. The HHI is a commonly used measure of the degree of concentration in any given industry or sector. An HHI index below 1,000 is generally taken as an indication that a market is relatively unconcentrated. An HHI between 1,000 and 1,800 is considered indicative of a market which is moderately concentrated, while an index in excess of 1,800 is generally considered highly concentrated. Measures of concentration such as the HHI offer only a static measure of a market and therefore changes in the index can offer better insight into the nature of competition in a market. Ofgem is unable to make such a comparison in this review. The HHI does not of itself offer evidence of the

⁴³ Price data are for the energy component of the retail price. For some contractual agreements, this element of price is not identified separately and suppliers have provided their best estimate of this price component.

⁴⁴ The HHI ranges in size from 0 to 10,000. It is calculated by squaring the percentage market share of each firm competing in the market and then summing the resulting numbers. For example, a single firm with a market share of 100 per cent, when squared, would result in a maximum HHI value of 10,000.

state of competition since the number of competitors that offer adequate competitive constraints to each other can differ between different economic activities and market conditions.

Electricity markets

- 4.107. Based on the information available, concentration levels in the non-domestic electricity markets appear to vary between moderate and highly concentrated.
- 4.108. For the small non-domestic electricity market, the HHI concentration index (by volume) is over 1,500, while the aggregate market share of the top six suppliers is high. Given the earlier discussion in this paper which suggests the ability to operate at a large scale is an important factor in this market, and given the small average revenues from these customers, the position of the top six suppliers may be less vulnerable to challenge by new entry than in other markets. It is reasonable to expect that concentration in this market may therefore not substantially alter over time.
- 4.109. The medium non-domestic electricity market exhibits a greater level of concentration than the small non-domestic market. The earlier analysis of this potential market suggests new entrants may be able to enter this segment more easily than the small or large non-domestic electricity market. Examination of the underlying data on market shares provided by suppliers supports this view, with many of the new entrants to the non-domestic electricity sector operating in the medium non-domestic market.
- 4.110. The HHI for the large electricity market suggests it is highly concentrated, with a small number of companies active in supplying electricity to these larger customers. However, it is also apparent that this market covers a smaller number of customers relative to other markets and that these customers purchase substantially larger volumes of electricity. Given the particular sources of risk and the scale of demand by these customers, this has the features of a market where a limited number of suppliers can compete for the business of a relatively low number of customers.
- 4.111. If there are no substantive differences between medium and large customers, a combined medium and large electricity market may be considered as an

alternative. Taking these as a single market, the HHI indicates concentration levels that are comparable to that of the medium market. Combining each of the three markets together reduces the HHI to a level of moderate concentration.

Gas markets

- 4.112. In general, indicators of concentration suggest the non-domestic gas supply market varies between moderate to high levels of concentration.
- 4.113. In the small non-domestic gas supply market, the market share of the top three suppliers exceeds 70 per cent. As with the small non-domestic electricity market, issues of scale are seen as relevant to the ability of suppliers to operate in this segment. However, the aggregate share of the top three suppliers in this market presents a different profile of concentration from electricity and the remaining suppliers do not appear to have acquired substantial market share.
- 4.114. In the medium non-domestic gas supply market, the relatively lower shares of the top three suppliers and the number of suppliers operating in this market have contributed to an HHI index which suggests it is moderately concentrated, with new entrants succeeding in building market share.
- 4.115. In the interruptible gas market, the HHI is indicative of a market that is also moderately concentrated. Relative to other non-domestic markets, the number of customers is small and has a small number of suppliers. However, customers in this market purchase substantial volumes of gas from a given supplier. Given this, where customers in this market switch supplier, substantial changes in supplier market shares are expected, although the HHI may not vary greatly over time.
- 4.116. A combined medium and interruptible market is considered moderately concentrated, where the share of the top three suppliers is reduced relative to their shares as assessed in separate markets. Combining all three markets produces only a slightly lower HHI, where the volume of the larger customers plays a role. In comparison with the electricity supply sector taken as a single market, the non-domestic gas supply sector is less concentrated.

4.117. Table 4.2 sets out the average energy-only prices paid by customers in the potential markets identified, over the calendar year 2002.⁴⁵ In general, larger volume consumers appear to pay lower prices, suggesting the volume discount in both the electricity and gas non-domestic sectors is a material factor in price. For the small non-domestic electricity market there is no clear relationship between lower price and higher market share of the top six suppliers in the market. The quality of price data for the medium non-domestic market allows some comparison to be made between price and market share. While not conclusive, it does appear that the three largest suppliers (in terms of volume) offer lower prices relative to their competitors; this is consistent with a greater level of competition in this market and a greater emphasis on price by customers. For the large non-domestic electricity market, the prices of the top six suppliers cover a narrower range, possibly due to the strength of customer buying power which is further reflected in the lower average price.

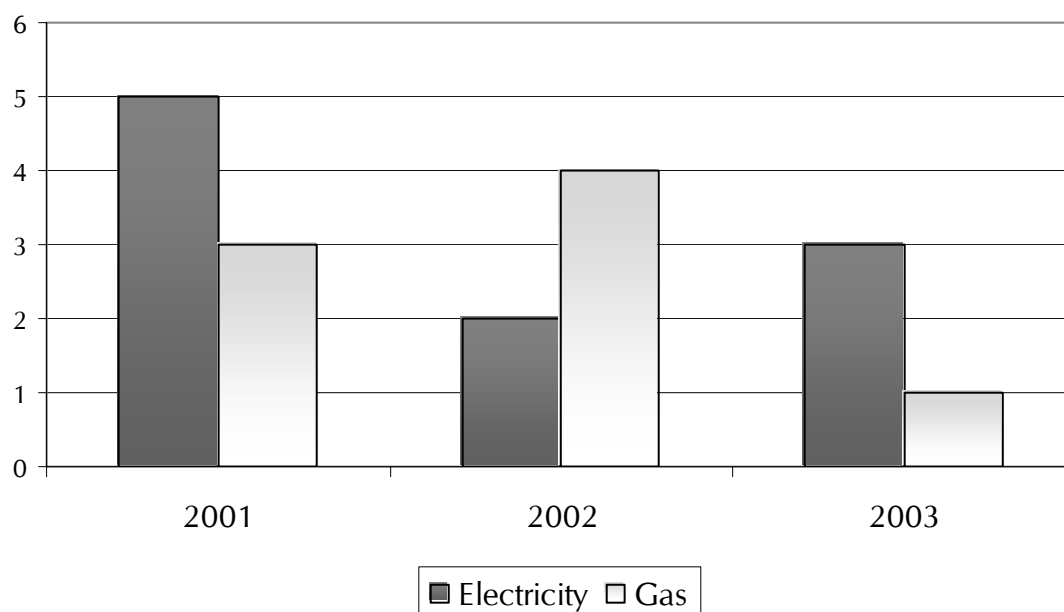
Market entry

4.118. The assessment of competitiveness within the potential economic markets discussed in this paper suggests a range of alternative suppliers are potentially available to non-domestic customers.

4.119. Figure 4.1 below shows the number of licensees entering the gas and electricity non-domestic supply sectors since 2001.

⁴⁵ These prices are the median supplier price in each market. For the combined markets the aggregate volume of consumption in each separate market is used to weight the respective median prices to form a single median price.

Figure 4.1 Number of non-domestic electricity and gas supply licensees entering market⁴⁶



Source: Ofgem

Comments sought

4.120. Ofgem would welcome comments on the issues discussed in this chapter, in particular:

Product and Geographic markets

- 1. the extent to which existing or potential investment in installed equipment, which enables switching between electricity and gas, acts as a constraint on the price of either energy source*
- 2. whether potential supplier substitution is a constraint on the ability of incumbent suppliers to raise prices*

⁴⁶ The graph shows all current licences authorising supply to non-domestic customers issued by Ofgem since 2001, excluding licences issued to parties that are affiliated with an entity holding a licence issued prior to 2001 and excluding licences where the holder does not appear to be supplying any non-domestic customers.

3. *whether the demands of retail gas supply to non-domestic customers differ from those required to supply the non-domestic electricity sector, and*
4. *the extent to which market conditions for supply of either gas or electricity to non-domestic customers are materially different between England & Wales, and Scotland.*

GB small, medium and large non-domestic electricity markets

5. *Whether domestic and small non-domestic customers are materially different from one another to the extent that small non-domestic customers and domestic customers are in different economic markets*
6. *the nature of the expertise and administration systems required by suppliers to serve the domestic markets and whether these are comparable to those required to serve small non-domestic electricity customers*
7. *whether electricity customers with meter profile classes three and four are constrained in their ability to secure supply terms available to customers with meter profile classes five to eight*
8. *whether comparable supply agreements are available to all customers in the medium non-domestic electricity market*
9. *the time involved to enter the supply market, and what aspects of entry contribute to delays to market entry in the small, medium and large non-domestic electricity markets, and*
10. *whether electricity customers above 20-30GWh consumption a year have demands for supply of electricity that are materially different from those of other customer groups.*

GB small (firm), medium (firm) and interruptible non-domestic gas markets

11. *Whether gas consumption levels create different incentives for customers to seek alternatives forms of supply agreement*

12. *whether alternative thresholds to 50,000 therms annual consumption might provide a better distinction between small and medium-sized customers and the choices available to them*
13. *the feasibility of entry by new suppliers to serve customers in the medium non-domestic gas market*
14. *whether the interruptible gas market is separate from the medium non-domestic gas market, or the characteristics of this sector are sufficiently different from other large customers as to justify categorisation as a separate economic market, and*
15. *whether electricity generators and oil refineries are comparable to other large gas customers in terms of their characteristics and the ability of suppliers to meet their particular demands.*

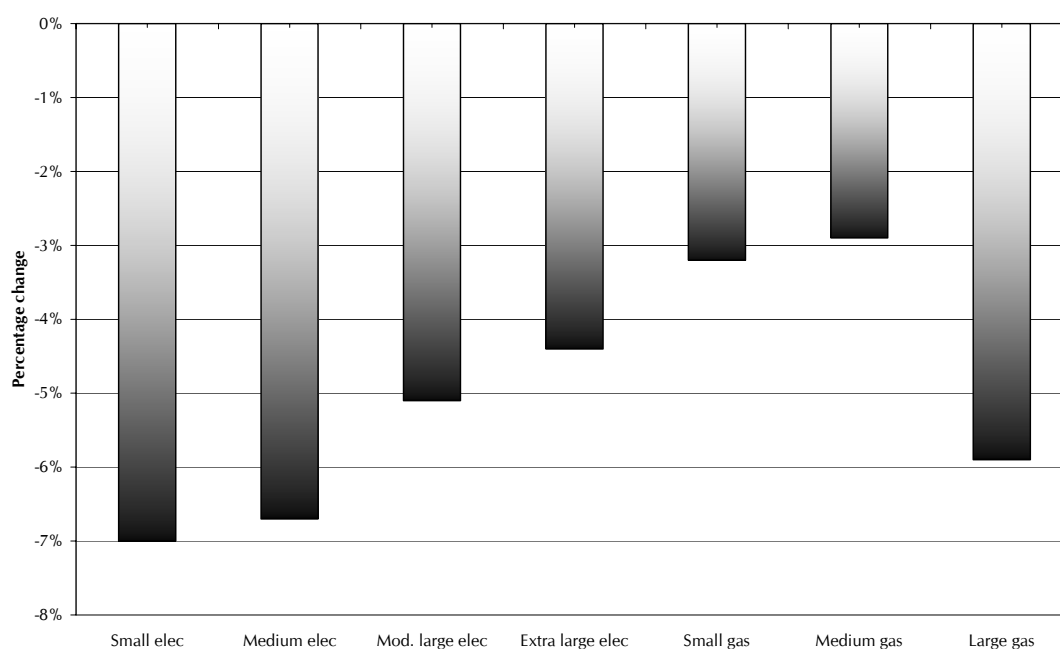
5. Customer issues – a discussion

Introduction

- 5.1. This chapter considers the range of customer issues within the context of the potential markets discussed in Chapter 4.
- 5.2. Non-domestic customers have conveyed a number of concerns to Ofgem about aspects of the sector. While the extent of concern may vary depending on customer characteristics, many of the issues raised are common across the spectrum of non-domestic customers.
- 5.3. In addressing such concerns it is useful to assess whether these have their origin in a failure of competition, or in some other aspects of the market. Factors not directly due to a failure of competition, such as industry processes and legacy systems, can nevertheless have an influence on the operation of the market and therefore competition. There is a range of regulatory measures that can offer a proportionate and coordinated response to many of these concerns. Such regulatory options are currently exercised by Ofgem and where they are relevant to concerns raised these options are identified.
- 5.4. The following four broad categories of concern are identified in this review, followed by Ofgem's assessment of these:
 - service quality
 - level of supplier competition
 - switching supplier, and
 - data quality.
- 5.5. The evidence available to Ofgem indicates that competitive pressures are in operation in the non-domestic gas and electricity markets in GB, and that customers have benefited from developments in competition.
- 5.6. Comparison between GB's non-domestic gas and electricity markets and those in European countries supports the view that electricity and gas customers continue to benefit from the advanced state of competition in GB relative to many

European countries (See Tables 3.1, 3.2 and 3.3). Figure 5.1 is taken from the DTI's "Energy Trends" publication covering the year to end of 2002, and illustrates the percentage change in average gas and electricity prices for a sample of manufacturers. This shows a decline in retail prices paid by these non-domestic customers for gas and electricity at varying consumption bands. The reduction in retail prices to customers in response to changes in supplier costs (such as falls in wholesale costs), is consistent with the view that competitive pressures are in operation in these markets.

Figure 5.1 Changes in end user prices from Q4 2001 to Q4 2002⁴⁷



Source: DTI

5.7. Indicators of competitiveness within the potential economic markets discussed in this paper suggest a range of alternative suppliers are available to non-domestic customers in each of these markets. Given the number of licences issued by Ofgem in the non-domestic electricity and gas sectors since 2001 (see Figure 4.1), it is also apparent that entry is considered feasible. Many of the

⁴⁷ Refer to DTI website (http://www.dti.gov.uk/energy/inform/energy_prices/tables/table_311.xls) for an explanation of customer categories.

newer entrants have chosen to serve medium and larger sized customers and achieved some degree of success. This is underlined by the additional investment undertaken by electricity licensees to gain approval for entry to the Supplier Volume Allocation (SVA) Trading Arrangements under the BSC where, since 2000, ten suppliers have gained approval to supply the non-half hourly sector and eleven licensees have gained approval to supply the half-hourly sector.

- 5.8. The rate of switching cited by the EC's benchmarking report, and indicative statistics obtained by Ofgem (see Tables 5.1 and 5.2 below), support the view that non-domestic customers are able to change supplier, despite prevailing customer concerns about weaknesses in the process.
- 5.9. The variety of contract options available further suggests that choices are available to customers. These alternatives vary from fixed-price contracts to contracts based on all well known indices, while a wide range of risk management and hedging tools are available to customers.
- 5.10. In terms of differences between customers, small electricity and gas customers are characterised by lower consumption levels that may not lend themselves to bespoke services. Based on the data in Chapter 4 on the narrower market definition, these markets also tend to be concentrated, with notable concentration levels in the small gas market. If a supplier's systems are poor this affects large numbers of customers, since the back-office processes are common to this class of customers. In these circumstances, individual customers are in a less influential position than larger customers with bespoke agreements to directly address issues related to service or data quality. Switching supplier is likely to be the primary means of addressing poor service quality by customers in these circumstances. Since supply agreements are generally ongoing rather than renewed annually, issues of transfer delays and out-of-contract rates are likely to be more significant for larger customers than these smaller customers.
- 5.11. Customer service quality in the medium and large electricity and gas markets is likely to be related to the number of meter points served by the supplier, primarily due to the greater administrative complexity, particularly where these are geographically dispersed. Customers with a large number of sites also

appear more vulnerable to problems related to supplier switching and data quality than customers with a single metered site. The primary reason for this is that while multi-site customers have a greater aggregate level of consumption, they tend to have a number of locations or combinations of sites. The administrative and logistical issues involved in supporting such customers are therefore more significant. Concentration levels examined in Chapter 4 suggest that if the narrower market definitions are used, the medium electricity and gas markets tend towards moderate concentration (by volume). Where incumbent suppliers are not willing or able to meet certain standards of service, these customers may have sufficient negotiating power to resolve such issues. In addition to the availability of alternative suppliers in the market, evidence on new entrants also suggests that the medium markets are attractive to these suppliers, where individual customer volumes are significant and system set-up costs may be less significant than the small markets. These options offer such customers potential alternatives to address areas of concern that relate to supplier service.

- 5.12. In the large electricity market and the interruptible gas market, there are a relatively smaller number of customers, who individually purchase substantial volumes of electricity or gas. Given the particular sources of risk and the scale of demand by these customers, it appears this is a market where a limited number of suppliers can compete for the business of a relatively low number of customers. Buyer power therefore appears to be a feature of these markets and, despite high levels of concentration, negotiating strength and ability to change supplier can offer avenues to resolve many of the concerns around supplier service quality. The scale of their consumption and related expenditure on gas and electricity also provides a sizeable source of revenue to potential suppliers. These customers are therefore in a position to attract suppliers to a greater extent than customers in other markets.

Service quality

- 5.13. Customers have suggested the level of resource provided by suppliers to resolve breakdowns in service quality is inadequate, while resolution of problems involves increasing amounts of customers' own resources.
- 5.14. Quality of service encompasses areas such as effective supplier communication channels, accuracy of billing, frequency of meter readings and resolution of problems in a reasonable time period. Since acceptable quality is a subjective area, the extent to which customers have attempted to specify levels of service quality in contracts, and the incentives they have created to achieve these are relevant considerations.
- 5.15. Customers have indicated that they have made attempts to include quality thresholds in supply contracts, but have little negotiating leverage with suppliers. This is, however, inconsistent with the success customers have achieved generally in negotiating price reductions over recent years following falls in wholesale prices for electricity as well as gas. Customers have also suggested they have little information available to them on which they can base informed decisions about supplier performance. The availability of the services of energy consultancy firms used by a number of customers and the existence of well-organised user groups potentially offer sources of experience to meet this need for many customers. Where these are not viable, possibly for the smallest non-domestic customers, the availability of comparative information such as that published by energywatch for domestic customers may offer further assistance in this area and is worth further consideration.
- 5.16. It is Ofgem's view that the largest non-domestic customers in particular appear to have sufficient buyer power and incentive to address such concerns through negotiated contracts. Also, they appear able to switch supplier relatively easily, given the size of the business they represent and in many cases the relatively fewer meters required to transfer. Following a series of interviews with suppliers and customers, as well as discussions with other industry players, Ofgem considers that the absence of quality thresholds in contracts may be more indicative of a failure by customers across the non-domestic sector to attach sufficient financial weight to service quality. While other customer priorities and

budgetary objectives may have related more to price in recent years without sufficient weight given to service quality, Ofgem is aware that a growing number of customers are seeking to redress this balance. Such developments will take time to influence the standards of service in the market generally, and Ofgem will maintain contact with user groups on this issue to ascertain whether suppliers respond to incentives to raise their service quality.

Level of supplier competition

- 5.17. Apart from the smallest customers on standard contracts, most non-domestic customers purchase their energy on fixed-term contracts, which are re-negotiated each year by competitive tender. While such contracts can be signed at any time of the year, the tendering process in most cases takes place, for historical reasons, in April and October each year.
- 5.18. Concerns have been raised about the decline in the number of tender responses, and some customers consider that the number of tender responses has now fallen below levels where they can expect to receive competitive bids from suppliers. Customers are also of the view that there has been a reduction in the variety of supply offers available. A related feature of supplier offers that has raised concerns is the limited period for which many are held open.

Decline in responses to tender and reduced variety of tender offers

- 5.19. Research was carried out by John Hall Associates (JHA) for Ofgem on supplier responsiveness to tenders. A recent feature is the number of customers taking advantage of low wholesale electricity prices and tendering either to the incumbent only, or to the incumbent and one other supplier. For half-hourly customers, JHA found that the maximum number of offers received was twelve, while for non-half hourly customers the maximum was nine. For both non-half hourly and half-hourly customers the most common number of offers received was six. Gas tenders were found to depend on the number and type of sites, with the number of competitive responses varying between three and twelve. According to most industry sources consulted by Ofgem, such levels of response to tenders are materially lower than previous years, confirming customer views.

A number of reasons for such declines have been suggested during the course of this review:

- *Developments in neighbouring countries* - Deregulation in the European mainland countries has contributed to greater merger activity, reducing the overall number of suppliers in the sector
- *Downward pressure on retail prices* - As already indicated in this document, the GB non-domestic markets appear competitive in terms of pricing relative to other European countries. This is likely to place greater pressure on supplier margins in GB relative to other neighbouring countries, and
- *Market exit* – Developments relevant to perceived business risk, such as the high-profile exit of certain suppliers, have raised concerns among existing suppliers as well as their shareholders.

5.20. A combination of the above factors is likely to have led suppliers to re-evaluate their market positions, with some suppliers withdrawing from businesses where the risks are considered too great, or where they do not perceive sufficient profits can be made. Ofgem is also aware that some suppliers, particularly new entrants, have focussed their business on particular niches.

5.21. In terms of customer influences, several factors have also been suggested:

- *Increases in cost of bidding* - Information presented to potential suppliers by customers for bidding purposes is not of uniform quality, further increasing the costs to suppliers of tendering to some customers and therefore potentially reducing the number of bidders. This particular issue appears to have grown in importance in recent years, and
- *Greater customer selectivity* - An increasing trend to greater selectivity by customers in terms of the suppliers they tender to.

5.22. The above assessment suggests behaviour by both customers and suppliers has contributed to a reduction in the number of responses to tendered business in the gas and electricity sectors. Also, in the general context of a market where retail prices are falling, a reduction in the number of suppliers willing to do business in such circumstances is not unexpected.

5.23. Despite falls in the number of suppliers tendering for business, it appears to Ofgem that response levels are not materially low and offer customers a reasonable number of alternatives. There appears to be a fair amount of evidence, given switching levels and price falls, to suggest that the incumbent supplier is subject to adequate competitive pressure and a customer's ability to switch offers a material restraint on the supplier's market behaviour. Where individual customers consider that they may be subject to excessive pricing or other forms of abuse of dominance, Ofgem has concurrent competition powers with the OFT to deal with complaints in this area. To date Ofgem has not received complaints under the Competition Act about these aspects of the non-domestic supply market. Whether further decline in the number of suppliers will harm competition is dependent on the parties involved and market circumstances. Ofgem will carefully consider the implications of further mergers in the non-domestic market given the concerns expressed by customers in this area.

Limited response-time to supplier offers

5.24. The prices quoted in tender offers are valid for a specified time period, sometimes only for a period of a few hours. The longer an offer is open, the greater the likelihood that the commodity prices for gas or electricity on which the offer was based will have changed. However shorter time-windows limit the ability of customers to compare offers, while a subsequent increase in wholesale price can reduce supplier margins. Where margins are small or price movements over the period of the offer are large, suppliers can be exposed to losses.

5.25. Ofgem has found no evidence to explain why prices for the period of a contract (often one year or more) should be subject to material change within very short time periods. While suppliers have argued that low margins provide insufficient buffer to absorb unfavourable commodity price changes and their rationale for quoting in narrow time windows is to protect reducing margins, the underlying cause of this behaviour is not conducive to customer choice. Such market behaviour does appear to restrict choice by customers. However, it would not appear to arise from the competitive conduct of suppliers, but from the movement of wholesale forward prices. Suppliers' ability to influence wholesale

prices and their potential gains from doing so appear limited. Ofgem has not been presented with any evidence showing causality between changes in forward prices and systematic benefit to vertically integrated suppliers, for example.

Switching supplier

5.26. Customers have argued that an essential feature of customer choice is the ability to choose an alternative supplier and expedite the change in a reasonable period of time. They regard the transfer mechanism and the objections process as significant areas of weakness in the change of supplier process.

Transfer mechanism

5.27. The transfer process for change of electricity supplier can take between 1 and 28 calendar days. Change of gas supplier can extend from between 15 to 45 working days. Comparing these time periods with those required to effect change of provider in other sectors provides some insight into whether the transfer process is excessive in this respect. In IT support agreements and telecommunications services, as well as many other office services, ninety day notice periods are fairly standard. The length of the transfer periods in gas and electricity therefore appear comparable to other sectors.

5.28. However, the associated features of the transfer process in gas and electricity supply together with the length of the change of supplier processes and the number of factors that can delay a transfer, can expose customers (but also suppliers) to risk. These features include:

- delays to a transfer can expose customers over extended time periods to penalties from the incumbent supplier through 'deemed rate' clauses, which apply substantially higher charges to customers who are out-of-contract with the incumbent supplier⁴⁸

⁴⁸ Increases of 12 to 15 per cent have been cited as the difference between contract prices and deemed rates.

- failure at any point in the process requires a resubmission of the transfer request by the new supplier causing further delays and administrative burden to both customers and the new supplier, and
- resolution of errors (ie rejections) in the transfer process is considered poor by customers interviewed by Ofgem, due to the restricted access by customers and new suppliers to information and contact with key parties to the transfer process.

5.29. Dealing with each of the above issues in turn, it is not unreasonable for the incumbent supplier, who must purchase gas or electricity for a customer who is out-of contract, to charge a higher rate given the short-term nature of these purchases in the wholesale market and where short-term purchases are more expensive. While it is unclear whether sufficient incentives exist for suppliers to expedite the transfer of customers to competitors in a reasonable time period, it remains an open question as to whether out-of-contract rates are unduly onerous.⁴⁹

5.30. The administrative burden referred to above is related to the number and complexity of sites a customer attempts to transfer. Data quality issues and objections are two primary reasons for the failure of an attempted transfer. However, the onus is on the customer and new supplier to resolve an issue, while the incumbent supplier has little incentive to expedite the loss of a customer. Customers have expressed the view that the facilities available within Transco or DNOs to resolve these issues can be improved.

5.31. Assessment of switching in the non-domestic sector, and the length of time taken to switch supplier successfully, should provide evidence of the extent to which the above issues have materially affected the sector. Ofgem has received MPAN data on switching rates broken down by non-half hourly and half-hourly customers. Table 5.1 below sets these out.

⁴⁹ Ofgem electricity and gas supply licences place conditions on the licensee in relation to deemed contracts, including an obligation that the terms of deemed contracts should not be unduly onerous. (Standard licence condition 28 of both the gas and electricity supply licences.)

Table 5.1 Switching rates of non-half hourly and half-hourly electricity customers, March 2003

	Non half-hourly (non-domestic)	Half-hourly
Never switched	55%	38%
Switched once	27%	36%
Swiched twice or more	18%	25%

Source: Ofgem

5.32. These switching figures indicate that the majority of non-domestic non-half hourly customers have never switched, with a significant minority of half-hourly customers having never switched. It should be noted that those customers who have renegotiated more competitive supply terms with their incumbent supplier are not indicated as having switched in the above table. Ofgem therefore recognises that the above data may reflect the success of incumbent suppliers retaining business through lowering of price to existing customers.

5.33. In the gas sector, Table 5.2 below provides an indication of attempted switching for non-domestic customers. Ofgem estimates that 16 per cent of all gas non-domestic customers switched during 2002 (transferred and not objected to). This figure increases to 19 per cent for customers that consume over 25,000 therms a year.

5.34. Given the evidence discussed earlier in the paper relating to price competition, Ofgem does not consider these switching patterns of themselves give cause for concern. On the contrary, the high level of customers who have switched suggests that, while barriers to switching can be improved, they are not prohibitive.

5.35. Initiatives to address concerns about the transfer mechanism are included within the discussion that follows in the areas relating to the objections process and data quality.

Objections process

5.36. Non-domestic customers' right to choose their energy supplier is currently limited by their existing supplier's ability to object to the transfer on the grounds of debt or lack of contract termination notice. Customers have raised concerns

about the objections process at a number of levels. They have expressed the view that the system appears to be one which is unaccountable and incentivises objections, even though the circumstances in which they may be made are circumscribed by licences. Also, they consider the objections procedure to be very opaque in the sense that it is frequently not possible to identify the reason for the objection. New entrants in particular appear to suffer greater disadvantage than incumbents where transfers are not efficiently processed, as growth is critical to their success.

5.37. In feedback to Ofgem, customers have also expressed the views that there may be a broader issue as to whether the individual frameworks for transfers are observed or enforced sufficiently, with some customers believing that the auditing of supplier or shipper conduct is inadequate.

5.38. Objections data for the non-domestic gas market is summarised in Table 5.2 below, for the period January to December 2002. As shown, the use of the objections facility by non-domestic suppliers is high - approximately 28 per cent of attempted transfers were objected to, the majority of which were due to contract reasons (insufficient termination notice). Work undertaken by Ofgem has provided evidence to suggest that suppliers have in the past objected on grounds not permitted by the relevant rules and codes of conduct (for details of the governing principles, see Appendix 1).

Table 5.2 Objections in the non-domestic gas market, January to December 2002

	Attempted Transfers	Objections-totals %	Objections by type		
			Contract	Debt	Others
Between 2,500 - 25,000 therms	78,799	29%	21%	7%	1%
Above 25,000 therms	9,064	20%	14%	6%	0.20%
Total	87,863	28%	20%	7%	0.80%

Source: Ofgem

5.39. Certainly the view of suppliers interviewed who were relatively new in the market was that the majority of objections to their attempted transfers were outside the objection rules.

- 5.40. Ofgem has concluded that the current objection arrangements result in a disruption to the smooth operation of the supply markets as perceived by both customers and suppliers and has said that *“customers are in some cases impeded from changing supplier, suppliers and customers are restricted from developing commercial arrangements other than those prescribed by the gas supply licence and MRA, and there is a lack of transparency for customers as to how gas suppliers use their ability to make objections.”*⁵⁰
- 5.41. Ofgem policy is that the terms of the gas supply licence and the MRA are changed to place the onus on the supplier and customer to agree how their relationship should be managed. It is proposed that the gas licence and MRA would be amended to only permit objections to transfer in circumstances set out in the contract.⁵¹ To this end, Ofgem will issue a notice under Section 23 of the Gas Act in August 2003 and would welcome an equivalent modification being proposed by a party to the MRA. The aim of this is to allow customers greater visibility of suppliers’ actions so that they can be challenged by the customer, and potentially raise the issue with Ofgem as breaches of the MRA or gas licence.

Data quality

- 5.42. Customers believe that the quality of customer consumption data, billing information and other data relating to sites has noticeably declined. They have argued that the decline in quality of such data has materially affected the operation of the market as it underpins many of the functions of an efficient supply market. In particular, the supplier hub is considered central to the problems in this area, where opening meter reads and estimated meter reads present further obstacles to efficient transfers.
- 5.43. Customers have reported that erroneous meter reads can result in discrepancies between billed consumption and actual consumption of the order of 25 to 30

⁵⁰ “Transfer objections: stronger rights for industrial and commercial customers - A consultation document”, Ofgem, December 2002, page 2.

⁵¹ The new proposals would also require that when an objection is made, the incumbent supplier would be required to inform the customer that it had made an objection, and to inform the customer as to how it can resolve or dispute the objection.

per cent. Certain customers have stated that where these impact on billing, they consider these error margins also tend to favour suppliers. In support of this view, some customers have provided Ofgem with correspondence with suppliers showing the growing cumulative difference between the consumption on which they have been billed and the figures they consider are actual consumption figures. Another customer reports that it has over 200 sites where more than one supplier claims a site is registered to them. There are also claims that customer records for approximately 10 per cent of half-hourly sites were corrupted when the Electronic Registration System (ERS) was transferred to the PES Registration Service (PRS) in 2000 and that this still affects transfers.⁵²

5.44. Data quality issues can materially inhibit the effective transfer of customers,⁵³ and are also relevant to other customer concerns relating to tendering processes as well as supplier service issues. It is no simple task to objectively gauge the materiality of this problem. There is, however, a strong suggestion by customers that the level of data quality held in these databases is below an acceptable standard. Gemserv has researched this area and in its paper published in May 2003, *"Gas and Electricity Customer Switching – Understanding the Problems, Finding the Solutions"*, it concluded that:

- industry processes are overly complex
- many data values are inaccurate
- data values residing on different participant databases are inconsistent, and
- there is a lack of timely provision of business critical data during change of supplier.

5.45. In response to the concerns raised by both customers and suppliers about the transfer process, Ofgem and energywatch jointly called a switching summit on 11 June 2003. At this summit Ofgem and energywatch challenged the industry to take decisive action to tackle transfer problems. Ofgem was encouraged by the commitment to complete a review of the problems that suppliers and

⁵² Prior to 2000, to facilitate competitive activities a central computer system called ERS was created to register details of all half-hourly customers. During 2000, suppliers migrated all half-hourly customer details to the PES Registration Service (PRS).

⁵³ An application for transfer is either rejected or delayed if discrepancies exist between the information held by the coordinating bodies (Transco for gas and the network operators for electricity) and that submitted.

customers experience when attempting to transfer. This will also identify the supplier and customer requirements for an effective transfer process. The majority of suppliers have also committed to identifying solutions and developing the changes required to deliver a step change improvement in the transfer process. This stage is expected to be complete by the end of 2004, followed by the implementation of the recommendations of this workstream.

Conclusion

5.46. This review has considered the basis of customer issues as they relate to the supply sector and has concluded that the non-domestic supply markets appear broadly competitive. Within this context, there are however some grounds for customer concern about certain aspects of these markets. In terms of specific issues, it is evident that there is scope for customers to take greater initiative to address those aspects of the market where they are in a position to influence supplier behaviour, such as the provision of greater incentives to achieve better standards of service or improving the quality of tender responses. Such alternatives offer a more appropriate response than regulatory intervention. Ofgem and industry initiatives are currently underway to address areas where customer concerns have been borne out, such as the transfer process, objections and the quality of information underpinning such processes. The above approach is considered the most proportionate response by Ofgem to concerns in this area. If these are not successful Ofgem has a range of alternatives available to address failings in the market.

5.47. Ofgem does not propose to conduct a further review of the non-domestic supply sector unless evidence is presented which might alter the conclusions of this review.

Comments sought

5.48. Ofgem would welcome comments on the issues discussed in this chapter, in particular on why suppliers make tender offers available only for a very limited time, when these relate to supply over periods of a year or more.

Appendix 1 – A summary of the Transfers and Objections Process

- 1.1 When there is a proposed transfer, a non-domestic customer should inform its existing supplier in accordance with the requirements of their contract that the contract is being terminated. The incumbent supplier will also receive a notice of termination through the network operator and may be notified by the new supplier as well. In both the gas and electricity non-domestic markets, the incumbent supplier has the right to object to, and sometimes to effectively 'block', the transfer in certain specific circumstances. The arrangements governing the objection process differ between the gas market and the electricity market.
- 1.2 In the gas market, the arrangements are governed by standard condition 30 of the gas supply licence.⁵⁴ In electricity, objections are governed by the Master Registration Agreement (MRA).⁵⁵

Gas

- 1.3 **The transfer process** - The particulars of the process for transferring a customer are set out in the Network Code of each relevant gas network operator (gas transporter).⁵⁶ A supplier wishing to transfer a customer must submit, via their shipper, a 'nomination' to the relevant transporter, requesting details of the cost of transporting gas to that site.⁵⁷ On receipt of this, the transporter will send a quote back to the supplier for the transportation costs, known as an 'offer'. This quote is valid for six months after it is made.

⁵⁴ Gas Suppliers Licence Standard Condition 30 – Debt Blocking.

⁵⁵ A legally binding, multi-lateral agreement between all distributors, suppliers, Elexon and Scottish Electricity Settlement Ltd which governs the system for the supply of electricity in GB. All licensed electricity suppliers and distributors are required by the terms of their supply licence to become party to and comply with the provisions of the Master Registration Agreement.

⁵⁶ The vast majority of gas customers are connected to Transco's network, but there are independent Gas Transporters (GTs) as well.

⁵⁷For any site that consumes less than 2,500 therms, regardless of whether it is defined as domestic or non-domestic, a nomination is not required.

- 1.4 In order to transfer the customer, a 'confirmation' must be sent to the transporter, including details of the proposed meter point such as the meter point reference number, the post code and the proposed transfer date. This confirmation must also include details of the quote received in response to the earlier nomination. On receipt of notification that a gas supplier has applied to transfer a site, the relevant network operator will notify the existing supplier, via their shipper. To be valid, a confirmation must be received by the transporter between 15 and 30 working days before the proposed transfer day.
- 1.5 Within seven days of receiving this notification, but at least seven days before the proposed transfer date, the incumbent supplier may raise an objection to the transfer (see below) in certain circumstances.
- 1.6 Should no objection be raised with the relevant transporter, the customer will be transferred to the new supplier on the proposed transfer date.
- 1.7 **Objections** - In the non-domestic gas market, under current arrangements, suppliers can object to a proposed transfer on the grounds of outstanding debt and insufficient contract termination notice. Specifically, the incumbent supplier can object to a proposed transfer if:
- the customer has failed to pay for charges which have been demanded in writing and have remained unpaid for 28 days since the demand, or
 - the customer is bound by provisions of a contract, where the provisions include a minimum time required for notice of termination which has not been given to the supplier.
- 1.8 The incumbent and new supplier then have a period of time to resolve the cause of the objection. The old supplier may withdraw their objection up to seven days after having raised it or by the eighth business day before the proposed transfer, whichever is the sooner. Should the objection not be withdrawn, the transfer of the customer will be halted.

Electricity

- 1.9 **The transfer process** - The process governing the transfer of electricity customers is set out in the MRA. When attempting to acquire a customer, a supplier is required to send an application to the relevant Meter Point Administration Service (MPAS) provider,⁵⁸ for the 'registration' of a particular meter point. To be valid, this application must contain certain information about the meter point in question, such as the relevant distributor ID number, the reference number of the meter, a security check digit, the supplier's ID number and the date from which the supplier will take responsibility for supply (the Supply Start Date).
- 1.10 In addition, to be valid, an application needs to be received by the MPAS provider between one and 28 days before the Supply Start Date.
- 1.11 On receipt of a valid application for registration, the MPAS provider is required to notify the customer's existing supplier that a transfer is proposed. The existing supplier may then raise an objection (see below) under certain circumstances to prevent the proposed transfer going ahead.
- 1.12 Should no objection be notified to the MPAS provider, the supplier will appoint the various agents needed to supply the customer (a Data Collector, a Data Aggregator and a Meter Operator – collectively known with the supplier as the 'supplier hub') and the customer will be transferred on the Supply Start Date.
- 1.13 **Objections** - On receipt of notification from the MPAS provider that a supplier has applied to register one of its customers, the incumbent supplier may object to the transfer, if it is entitled to do so, but must do so within five days of receiving notification. When an objection is made, the transfer of the customer is suspended by the MPAS provider, pending the withdrawal of the objection by the incumbent supplier. The incumbent supplier may withdraw its objection within five days of making it. If an objection has been made and is not subsequently withdrawn, the transfer will not take place.

⁵⁸ The Meter Point Administration Service is one of the functions undertaken by electricity distributors.

- 1.14 When an objection is made, the incumbent supplier must also notify the customer of its objection and the reasons, as well instructing the customer as to how they may dispute or resolve such grounds (not currently a feature of the gas market). The MPAS provider is required to notify the new supplier that an objection has been made.
- 1.15 In the non-domestic electricity market, under current arrangements, a supplier is not permitted to object to a proposed transfer on the grounds of debt or insufficient contract-termination notice. The incumbent supplier is only entitled to object in two specific circumstances:
- if the new supplier has contacted the incumbent supplier and both have agreed that the customer has been registered in error (a 'cooperative objection'), or
 - the transfer concerns a site with related meter points, and the new supplier has not correctly applied to register all the meter points at the same time.

Appendix 2 – Academic bibliography

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Appendix 3 – Arrangements governing metering and data services

Gas

- 3.1 Meter reading services are provided by meter reading agencies, which include Transco, the ex-PES metering businesses and independent agencies. At present, gas shippers are the purchasers of meter reading services. Almost one half of shippers (accounting for more than 85 per cent of non-daily metered supply points) use agents other than Transco for all or part of their meter reading portfolios.
- 3.2 Transco provides these services under a contract and separate from its role as a gas transporter; its non-daily meter reading activities are not price controlled. In addition, Transco has a licence obligation to publish, and charge in accordance with, a clear and transparent statement of charges for its services.⁵⁹ For the very largest customers, that are daily metered and price controlled,⁶⁰ Transco is the de facto monopoly meter reading agency and its services are described in detail in its Network Code.

Electricity

- 3.3 Data retrieval and data processing (together with a third activity called data aggregation) are defined roles within the electricity market. The operation of these processes and their supporting systems are described in documents and codes ratified by the BSC company, Elexon.⁶¹ Agencies that wish to offer these

⁵⁹ Transco Gas Transporters Licence Special Condition 23 – Provision of Metering and Meter Reading Services. On 23 May 2003 Ofgem issued a consultation ("[Open Consultation Letter on Non Daily Meter Reading - Transco's Special Licence Condition 23](#)", Ofgem, May 2003) on a proposal to issue a direction relieving Transco of the obligation to produce these charging statements for non-daily metered supply points (ie those supply points that are not interruptible, are not NTS supply points and have an annual quantity of no more than 58,600,000 KWh).

⁶⁰ There are approximately 2,000 daily metered (DM) sites in the gas supply market, which are those that consume the largest amounts of gas or which are interruptible.

⁶¹ Elexon procures, manages and operates services and systems, which enable the balancing and imbalance settlement of the wholesale electricity market and retail competition in electricity supply.

services require accreditation by Elexon.

- 3.4 These services are provided to non-domestic suppliers under a principle known as the 'supplier hub'. Under the supplier hub principle, suppliers are required to appoint accredited Data Collectors and Data Aggregators for each meter point that they supply, but they are ultimately responsible for the efficient performance of their agents.
- 3.5 Although several of the ex-PES businesses remain major players in the provision of data services through the MPAS function offered by their distribution licensees, since 1994 it has been possible for suppliers in the half-hourly metered electricity market to use alternative providers of metering and data services.

Appendix 4 – Supplier market shares

- 4.1 The following tables provide details on market shares for the potential customer segments identified in this review, categorised by the market share bands given below.
- 4.2 The tables are based on information provided to Ofgem by suppliers on volumes of energy supplied during 2002 and the number of meters registered as at the end of 2002. Where data has not been provided, other data sources have been used in conjunction with available information from suppliers to estimate market shares.

Electricity

Electricity by meter points

Market Share	Volume band (consumption by meter)		
	Up to 200MWh	200MWh to 30,000MWh	Over-30,000MWh
Over 15%	British Gas EdF Group Powergen/TXU	British Gas	EdF Group Innogy
10% to 15%	Innogy SSE	EdF Group Innogy	SSE
5% to 10%	ScottishPower	Powergen/TXU SSE	ScottishPower
Up to 5%	Atlantic Electric & Gas BizzEnergy British Energy Economy Power Fortum Maverick Energy Renewable Energy Smartest Energy TotalFinaElf	Atlantic Electric & Gas British Energy Maverick Energy Renewable Energy ScottishPower TotalFinaElf	British Gas British Energy Smartest Energy TotalFinaElf

Source: Suppliers

Electricity by volume

Market Share	Volume band (consumption by meter)		
	Up to 200MWh	200MWh to 30,000MWh	Over-30,000MWh
Over 15%	EdF Group Innogy Powergen/TXU	EdF Group Innogy Powergen/TXU	EdF Group Innogy
10% to 15%	British Gas	British Energy	SSE
5% to 10%	SSE ScottishPower	SSE	British Energy ScottishPower
Up to 5%	Atlantic Electric & Gas BizzEnergy British Energy Economy Power Fortum Maverick Energy Renewable Energy Smartest Energy TotalFinaElf	Atlantic Electric & Gas British Gas Maverick Energy Renewable Energy ScottishPower TotalFinaElf	British Gas Smartest Energy TotalFinaElf

Source: Suppliers

Gas

Gas by meter points

Market Share	Volume band (consumption by meter)		
	Up to 50,000 therms	Over-50,000 Therms	Interruptible
Over 15%	British Gas Powergen/TXU	Powergen/TXU TotalfinaElf	Gaz de France Energy Powergen/TXU TotalfinaElf
10% to 15%		BP Gas	BP Gas
5% to 10%	Innogy TotalfinaElf	British Gas Fortum	British Gas Innogy Shell Statoil
Up to 5%	Atlantic Electric & Gas BP Gas Cofathec Heatsave Contract Natural Gas Countrywide Farmers Crown Energy Economy Gas EdF Group ENI UK Fortum Gaz de France Energy Monal Utilities Norvic Natural Gas Pennine Natural Gas Reephram ScottishPower Shell SSE Statoil Total Energy Gas Supplies V-is-on Gas	Atlantic Electric & Gas Cinergy Global Trading Cofathec Heatsave Crown Energy EdF Group ENI UK Gaz de France Energy Innogy Pennine Natural Gas Regent Gas ScottishPower Shell SSE Statoil V-is-on Gas	Cinergy Global Trading EdF Group ENI UK Fortum SSE V-is-on Gas

Source: Suppliers

Gas by volume

Market Share	Volume band (consumption by meter)		
	Up to 50,000 therms	Over-50,000 Therms	Interruptible
Over 15%	British Gas Powergen/TXU	Powergen/TXU TotalfinaElf	BP Gas Gaz de France Energy
10% to 15%	TotalfinaElf	Gaz de France Energy	Powergen/TXU Shell Statoil TotalfinaElf
5% to 10%	Shell	BP Gas British Gas Shell Statoil	
Up to 5%	Atlantic Electric & Gas BP Gas Cofathec Heatsave Contract Natural Gas Countrywide Farmers Crown Energy Economy Gas EdF Group ENI UK Fortum Gaz de France Energy Innogy Monal Utilities Norvic Natural Gas Pennine Natural Gas Reepham ScottishPower SSE Statoil Total Energy Gas Supplies V-is-on Gas	Atlantic Electric & Gas Cinergy Global Trading Cofathec Heatsave Crown Energy EdF Group ENI UK Fortum Innogy Pennine Natural Gas Regent Gas ScottishPower SSE V-is-on Gas	British Gas Cinergy Global Trading EdF Group ENI UK Fortum Innogy SSE V-is-on Gas

Source: Suppliers