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Competition Act 1998

Decision of the Gas and Electricity Markets Authority

Investigation into National Grid (formerly known as Transco) (Case CA98/STG/06)

21 February 2008

Ref: 27/08

Target Audience: National Grid, gas suppliers, meter operators and all parties with an interest in Competition Law decisions

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Overview: The Authority has found that National Grid has abused its dominant position in the market for the provision of domestic-sized gas meters (which includes the ancillary service of meter maintenance) in Great Britain. This is contrary to section 18 (the chapter II prohibition) of the Competition Act 1998 and Article 82 of the EC Treaty. The Authority has directed that National Grid put an end to the infringement identified in the decision and refrain from engaging in conduct capable of having the same or equivalent exclusionary effect as the conduct that the Authority has found abusive. The Authority has decided that National Grid's conduct is a serious breach of the Competition Act and has imposed a financial penalty on National Grid of £41.6 million.

[The Authority has excised from this decision information which the Authority considers should be excised having regard to the three considerations set out in section 244 of the Enterprise Act 2002 (Specified information: considerations relevant to disclosure). The excisions are indicated by *[excised]* or are substituted by information in *[ ]*]

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Summary

The Gas and Electricity Markets Authority ('the Authority') finds that, contrary to section 18 (the chapter II prohibition) of the Competition Act 1998 and Article 82 of the EC Treaty, National Grid ('NG') has abused its dominant position in the market for the provision and maintenance of domestic-sized gas meters.

NG rents gas meters to domestic gas suppliers that are required to measure the volume of gas that a domestic customer has used. NG is dominant in the market for the provision and maintenance of domestic-sized gas meters in Great Britain.

NG has abused its dominant position by entering into long-term contracts known as the Legacy Meter Service Agreements ('Legacy MSAs') and the New and Replacement Meter Services Agreements ('N/R MSAs'). These contracts together artificially and illegally restrict the rate at which gas suppliers can replace NG's meters with less expensive and/or more technologically advanced meters offered by Competing Meter Operators ('CMOs').

The Legacy MSAs define the number of meters that a gas supplier is scheduled to rent from NG over an 18 year period for domestic credit meters ('DCMs') or 7 years for prepayment meters ('PPMs'). This schedule is known as the glidepath. If gas suppliers replace more meters than the glidepath permits they face a complex set of ***financial penalties***. The form and level of these penalties depend on the extent to which the gas suppliers replace more meters than the glidepath allowance. The MSAs specify that a gas supplier will pay:

- A **full meter annual rental charge** for each meter the supplier was scheduled to rent, rather than for the actual number it rents if, following meter replacement, the remaining stock of legacy meters is between 90% and 100% of meters the supplier was scheduled to rent under the glide path. No allowance is made for the costs NG avoids when it no longer provides or maintains the meter. This is referred to in this Decision as a **take-or-pay provision**;

- If the gas supplier replaces enough NG meters for the remaining stock to fall below 90% of the glidepath "allowance", the supplier must pay a **premature replacement charge**, per meter, on the shortfall between the level of its remaining stock and 90% of the glidepath allowance. This charge is the same irrespective of the age of the meter or when the meter was installed. The contract gives NG the right to levy even higher premature replacement charges if in NG's view the supplier has replaced a "disproportionate" number of very young or recently installed meters. For older meters where the rental charges already paid by the supplier would have allowed NG to recover the majority (or all) of the costs of purchasing and installing the meter this charge (£57 for DCMs[1] at the time of entry into force of the MSAs) is high compared with the average cost of buying and installing a new meter (£75-80) and is therefore likely to deter gas suppliers from replacing more meters than scheduled by the Legacy MSA.

[1] Legacy MSA, Schedule 7, Part 2, clause 3.1(i).

Historically, NG had a de facto monopoly in metering and bundled metering with gas transportation. Since the opening of the market to competition, gas suppliers have been able to use CMOs offering cheaper annual rentals, more advanced meters and/or better service levels than NG. However, gas suppliers are only likely to switch to a CMO if any switching costs can be offset by expected rental savings. Although the glidepath allows gas suppliers to replace some meters free of charge each year, this free allowance is in practice largely taken up by meters that suppliers have to replace because they are faulty, inaccurate or customers request an exchange between a DCM and a PPM (or vice versa). Under the MSAs, suppliers would face penalties of between £87 million and £127 million to replace an extra 3% or 4% of NG's DCM stock each year for the first three years. These charges are highly likely to deter gas suppliers from switching to competitors.

Even if a gas supplier is using CMOs to replace meters, NG will continue to replace a relatively significant proportion of meters that are available under the glidepath during maintenance visits. The Legacy MSA and N/R MSAs bundle maintenance with meter provision. NG generally replaces a DCM on a maintenance visit (although the number of maintenance call-outs for DCMs is relatively small). Maintenance of PPMs does not always lead to meter replacement but still leads to a significant number (as a proportion of the glidepath allowance) of PPM's being replaced by NG each year. The Authority considers that preventing CMOs maintaining NG's meters increases the foreclosing effect of the MSAs: it reduces further gas suppliers' willingness and incentive to rent meters from competitors; it prolongs the duration of the contractual relationship under the MSAs and, if gas suppliers switch to a CMO, it prevents CMOs replacing faulty DCMs and PPMs following a maintenance visit and increases the likelihood of exceeding the glide path allowance and facing significant switching costs.

The Authority considers that the switching costs imposed by NG have had an actual effect on competition by reducing gas suppliers' willingness to rent meters from competitors. The MSAs reduce to a disproportionate extent gas suppliers' flexibility to switch to cheaper CMOs. This limits the ability of competitors to enter profitably the metering market or expand their businesses and compete effectively with NG. By restricting competition, NG has deprived gas suppliers and gas customers of lower prices, improved service and innovation in the provision and maintenance of domestic–sized meters. In particular the switching costs are likely to reduce or remove the incentives on suppliers to consider replacing older meters with smarter, more technologically advanced meters.

The Authority does not consider that the charges NG levies under the MSAs can be objectively justified. NG has argued that the contracts are a legitimate way of protecting their historic sunk investment in long lived meter assets. But the Authority has shown that there were (and are) other ways that NG could seek to recover any ***customer specific sunk costs*** that are less restrictive of competition. One way would be the use of a simple, transparent age-related premature replacement charge for all meters without the need for any glidepath allowance, take or pay charges or other financial penalties.

The Authority has decided that NG's behaviour is capable of affecting trade within the UK and the EC and is a breach of the Chapter II prohibition and Article 82 of the EC Treaty.

The Authority has directed that NG must bring to an end the infringement. It has decided that NG's conduct is a serious breach of the Act and has imposed a financial penalty on NG of £41.6 million.

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1. INTRODUCTION

The complaint

1.1. On 19 October 2004[2] the Authority received a complaint from a meter operator seeking to enter the market for the provision of domestic sized gas meters. The complainant expressed concern that the Legacy Meter Service Agreements ('Legacy MSAs') - contracts that National Grid ('NG') entered into with five of the six major gas suppliers and a number of smaller gas suppliers operating in Great Britain for the provision and maintenance of domestic-sized gas meters - had the effect of foreclosing the market to competing meter operators ('CMOs'). Similar concerns were raised by the same complainant[3] and a number of other companies[4] in response to the Authority's Consultation into NG's Proposed Restructuring of Metering Arrangements[5] in March 2005.

1.2. The complaint highlighted the following features that the complainant argued had the cumulative effect of foreclosing the market:

- Excessively long contract duration coupled with the payments for early termination;
- a condition precluding gas suppliers from replacing more than 5% of a supplier's metering stock in any one year with contract penalties for replacement above this level; and
- bundling of meter provision and maintenance.

The investigation

1.3. On 16 June 2005 the Authority[6] concluded that there were reasonable grounds for suspecting either an infringement under section 2 of the Competition Act 1998 ("the Act")/Article 81 of the EC Treaty or an abuse of dominance under section 18 of the Act and Article 82 of the EC Treaty in the market for the provision of domestic-sized gas meters. The Authority sent requests for information under section 26 of the Act to NG, supply companies and CMOs between 15 July 2005 and 10 November 2005.

1.4. On 16 January 2006 the Authority narrowed the scope of the investigation to focus solely on section 18 of the Act and Article 82 of the EC Treaty on the basis that a decision under chapter II of the Act could be reached more swiftly and would avoid unnecessary disruption to the industry. The Authority sent further information requests under section 26 of the Act to NG and other companies (including Centrica plc, Scottish and Southern Electricity plc, E.ON Limited, Siemens Energy Services

[2] Letter from the complainant to Ofgem, 19 October 2004, Document 10730.

[3] See letter from the complainant to Ofgem dated 8 April 2005, Document 10724.

[4] See for example, letter from Statoil, dated 8 April 2005, Document 10889.

[5] The proposed restructuring of NG Transco's metering business –Consultation Document March 2005:78/05, Document 10866.

[6] The Office of the Gas and Electricity Markets. 'Ofgem' refers to the executive body of civil servants supporting the Authority and is the commonly employed name of the office acting in an executive capacity on behalf of the Authority.

Limited, United Utilities plc, RWE npower, Scottish Power and EDFE) between 27 January 2006 and 28 April 2006.

1.5. The Authority issued a Statement of Objections ('SO') to NG on 17 May 2006. NG responded in writing on 10 August 2006 and made oral representations to Ofgem on 12 September 2006.

1.6. In the light of NG's representations, the Authority sent further information requests to NG and other companies (including Centrica plc, Meter Fit Limited, Scottish and Southern Electricity plc, E. ON Limited and Onstream Limited) between 22 November 2006 and 11 April 2007. The Authority issued a Supplementary Statement of Objections ('SSO') to NG on 27 April 2007. NG submitted a written response to the SSO on 6 July 2007 and made oral representations on 17 July 2007. As part of its response, NG provided new data relating to the age distribution of its domestic sized meters. NG had not provided this data at earlier stages either in response to the SO or relevant S26 enquiries.

1.7. As a result of the new data provided by NG in response to the SSO, the Authority issued further requests for information under section 26 of the Act to NG and Centrica plc between 4 July 2007 and 10 August 2007. The Authority sent the new information received from the information requests as well as all developments in the Authority's analysis since the SSO was issued to NG in a letter dated 17 October 2007 (the 'put-back letter'). NG responded in writing on 8 November 2007 and made oral representations on the 'put-back letter' on 12 November 2007. The Authority sent a final 'put-back letters' with outstanding points of fact to NG on 13 December 2007 and 23 January 2008, to which NG responded on 20 December 2007 and 29 January 2008.

1.8. The Authority has decided that NG has abused its dominant position in the market for the provision and maintenance of domestic-sized gas meters, in breach of section 18 of the Act and Article 82 of the EC Treaty. The Authority has reached this decision as a result of the information obtained in the course of the investigation and the Authority's assessment and analysis of that information.

1.9. In reaching its decision the Authority has fully considered: all the representations made by NG in response to the SO, the SSO and the 'put-back letters'; all information provided and representations made in correspondence and orally between NG and the Authority during the course of the investigation; and the complaint and the various representations made by the complainant and other third parties during the course of the investigation. NG has been given an opportunity to comment on these representations by third parties in accordance with established procedures for investigating cases under the Act.

2. THE FACTS

2.1. In this Chapter the Authority describes:

- The products and services that are the subject of this decision, namely the provision of installed domestic-sized gas meters including the ancillary service of meter maintenance;
- the undertaking concerned, NG;
- how competition was introduced to the domestic gas metering market and the regulatory framework for that market;
- how gas suppliers responded to the introduction of competition by seeking meter provision and maintenance from CMOs; and
- how NG developed the MSAs and the main terms of these agreements.

Products and services in this decision

2.2. The products and services that are the subject of this decision relate to the provision of domestic-sized[7] gas meters and related services[8]. Gas meters are installed in each customer's premises and are used to measure how much gas the customer has consumed. Gas suppliers need this information to charge their customers accurately for the gas they have supplied to them. The information is also needed to determine the charges the supplier has to pay to gas shippers and gas transporters for transportation, shipping and as part of the industry "balancing and settlement" arrangements.

2.3. The natural gas supply chain is illustrated in Annex 1. The three main types of companies are:

Gas suppliers – who have a contractual relationship and supply gas to the domestic customer;

Gas shippers – who buy gas from producers in the North Sea, import gas and/or store gas and sell it to gas suppliers; and

Gas transporters – who own and operate the pipelines that transport gas and contract with shippers for the provision of transportation capacity and other services.

2.4. These are all separately licensable activities under the terms of the Gas Act 1986.

2.5. The Gas Act 1986 obliges every customer supplied with gas conveyed by a licensed gas transporter to take their gas consumption through a meter[9]. There are approximately 22 million domestic-sized gas meters installed in Great Britain. The total number of installed domestic-sized gas meters is growing by approximately 1 per cent a year as new connections are made to the gas networks. Although the Gas Act 1986 allows domestic gas customers to make their own metering

[7] This term is explained in more detail in chapter 3 of this Decision.

[8] The introductory remarks in this section are not intended to be comprehensive and are not a substitute for the analysis of the relevant market set out in chapter 3.

[9] Paragraph 2 of Schedule 2B of the Gas Act 1986 (as amended). Schedule 2B is also referred to as 'The Gas Code'.

arrangements, customers almost always rely on their gas supplier to provide their gas meter as part of their gas supply arrangements.

2.6. Historically, gas meters were provided by Transco (now NG), the then monopoly gas transporter, and charges were bundled with transportation charges. However, as explained in more detail later in this Chapter, the market is now open to competition and suppliers can own meters themselves or lease or rent them from other meter providers or gas transporters. However, NG and other gas transporters retain a licence obligation to provide meter services at the request of a supplier[10].

2.7. The typical supply chain for gas meters, following the introduction of competition, is set out below:

Meter manufacturers- who produce gas meters and sell them to meter operators.

Meter operators- who own and then rent or lease the meters to gas suppliers. They install the meters on customers' premises and may in some cases maintain them for the gas suppliers. **NG** and other gas transporters are meter operators. We refer to those new entrants competing with NG in meter provision as '**competing meter operators'** or '**CMOs**'.

Gas suppliers- who rent or lease the gas meter from the meter operators to measure the volume of gas that they supply to customers.

Customers- who require different sizes of meters depending on how much gas they use. There are 'domestic-sized' gas meters for domestic and small industrial and commercial (I&C) customers. There are larger gas meters for large I&C customers.

2.8. Domestic-sized meters are cheaper and less sophisticated than those that typically have to be installed at larger I&C customers' premises. The largest I&C customers are required to have meters that record their gas use every day and submit daily meter reads electronically for settlement purposes[11]. I&C customers are also able to procure and provide their own gas meters and related services although in practice the majority of meters are provided by NG.

2.9. There are two main types of domestic-sized gas meter in Great Britain: ***domestic credit meters*** **('DCMs')** that account for around 90 per cent of the total domestic-sized meter stock, and ***prepayment meters*** **('PPMs')** that make up the remaining ten per cent.

2.10. Both types of meter provide the same basic functionality of measuring and displaying the quantity of gas (volume or mass) which has passed through the meter. The volume of gas used is then converted into energy used for billing purposes based on conversion factors calculated from the measured typical average energy content of volumes of gas transported.

2.11. A PPM meter requires the domestic customer to pay in advance for their gas use through a pre-payment card arrangement. There are currently approximately 2.3

[10] Eg Standard Licence Condition 8 of the Gas Transporters Licence.

[11] Any site which consumes more than 2196Kwh must have a daily meter read. It is estimated there are 2000-3000 such sites.

million customers with PPMs. For some, PPM is the preferred method of paying for gas because it helps with budgeting. For other customers, gas suppliers may require the installation of a PPM where a domestic customer is in debt or has a poor payment history or credit record. Domestic customers who move into a property with a PPM may request that a PPM be replaced by a DCM. These swaps between DCM and PPM meters are known as ***'functionality changes'***.

2.12. At present all domestic-sized meters have to be read by a meter reader visiting the property or by the customer who then submits the reading to the supplier by telephone, post or via the internet. Meter reads are arranged by the gas supplier. Trials are currently being carried out of more advanced meters that would allow, for example, for automated meter reads ('AMR') and two-way electronic communication between the gas supplier and the meter. There are also meters that allow remote disconnections, switching between credit and pre-payment modes and remote tariff changes for pre-payment meters. To date, the introduction of these ***'smarter***' types of meters has been slow in Great Britain and mainly limited to non-domestic meters at industrial sites. However a range of factors is leading to increased interest from gas customers and suppliers about installing smarter forms of gas metering. These include:

- the falling costs of smart meters and the associated communication equipment;
- the high cost of purchasing and maintaining the current pre-payment meter technology;
- concerns over the accuracy of gas bills based on estimated meter readings;
- increasing energy costs coupled with customer concern about climate change creating greater interest in energy efficiency and greater customer demand for more frequent and accurate gas use information; and
- greater competition between gas suppliers leading to suppliers looking at ways to lower the total costs of supplying customers and to differentiate the products and services they offer their customers from their competitors.

The activities involved in meter provision and related services

2.13. The principal activities associated with the provision of domestic-sized meters and related services are:

- the purchase of the relevant meter;
- meter installation;
- meter maintenance;
- call centre and IT system costs.

2.14. A new DCM can currently be **purchased** for about £20. The most commonly used PPM meter currently costs around £120. However NG does not always install new meters but also makes use of refurbished meters that it has previously removed from other customers' premises. For PPMs, in particular, NG data indicates that *[70-90]* per cent of the meters that it installed between 2004 and 2006 were

refurbished[12]. NG estimates that its weighted average cost of purchasing a PPM between April and October 2006 was less than *[50% of the cost of purchasing a new PPM]*[13] (i.e. about £*[excised]* lower than the cost of purchasing a new PPM at that time)[14]. The CMOs have only installed new (not refurbished) DCM and PPM meters since the market was opened to competition.

2.15. The next element of meter provision is the physical **installation** of the meter in the domestic customer's premises and connecting it to the gas distribution network. The installation costs represent a significant upfront cost. NG's average meter installation costs are relatively similar for both DCMs and PPMs and are currently between *[£50-65]* per meter, of which *[over 20%]* is an allocation of overheads including logistics, call centre and other NG costs. However, installation costs depend on the scale and density of operation, as this determines how many meters can be installed daily by trained technicians employed in each area. This has been described during a meeting[15] with a CMO, Siemens. They explained that the call-out cost is approximately £*[45-55]* whilst the marginal cost of visiting another meter in the same area is comparatively low (much less than £*[45-55]*) so the volume and density of meters will affect the cost per meter of installation. Siemens pointed out that the key cost drivers are access rates and travelling time.

2.16. NG and the CMOs typically finance the purchase and installation costs of the meters and then recover these costs through annual rental charges from the gas supplier, recovering these costs over the assumed life of the meter. Typically the assumed life for a DCM is around 20 years and 10 years for a PPM[16].

2.17. Some of these costs are sunk and cannot be recovered if a gas supplier removes the meter before the end of its assumed life. Typically, the annual rentals and assumed life are set to allow the meter operator to recover the cost of installation and purchasing the meter over the life of the contract (and the meter asset). Installation costs are ***customer specific sunk costs*** (unless, as with the case of NG Category 2 meters installed new since 2000, installation is charged for up-front[17]). The cost of the meter may not be a customer specific sunk cost as the meter operator may be able to reuse the meter at another customer's premises after it has been removed. Meter Operators look to protect themselves against the risk of not being able to recover customer specific sunk costs in a variety of ways. They can charge an upfront installation cost for installing the meter. Or they can offer suppliers contracts that guarantee the recovery of any ***customer specific sunk costs*** through annual rental charges over the life of the meter. These contracts levy a premature replacement charge set at a level designed to recover

[12] NG's written response to section 26 notice dated 12th January 2007, Document 11269, page 13, question 8 and NG's written response to section 26 notice dated 22nd November 2006, Document 11244, page 29, question 6(h).

[13] The low purchase price of refurbished PPMs has significant implications in relation to NG's costs and prices for customers.

[14] NG's written response to section 26 notice dated 12th January 2007, Document 11269, page 5-6, question 5.

[15] Meeting between Ofgem and Siemens, 'Note of meeting with Siemens regarding the investigation into National Grid's Legacy and new/replacement metering service agreements (MSAs),' 17 February 2006, Document 10667, page 3, paragraph 13.

[16] For example the CMO contracts include these durations.

[17] NG written representations in response to the SSO, dated 6th July 2007, Document 11380 B, Appendix 2, page 7.

any remaining customer specific sunk costs in the event of early replacement of a meter that is not faulty.

2.18. The third element is what is termed **meter maintenance**. The Gas Act 1986 requires the gas transporter or supplier as owner of the gas meter to keep the meter in proper order. DCMs rarely require maintenance and, given the relatively low cost of DCMs relative to the labour costs of maintenance technicians, maintenance visits in practice frequently lead to the meter being replaced rather than repaired. As Siemens noted in a meeting with Ofgem:

> 'The decision to repair has to be balanced against the cost of new meters, which is only about *£[15-25]* and the cost of maintenance on site, which is approximately *£[50-100]* per hour depending on the region'[18].

2.19. NG's maintenance manual makes clear that for DCMs, any maintenance visit that identifies a fault will lead to the meter being replaced:

> 'Where the meter is found to be faulty it shall be exchanged.'[19]

2.20. As PPM meters are much more expensive, PPM meters tend to be repaired rather than replaced on maintenance visits. NG carried out approximately 600,000 unplanned PPM maintenance visits in 2005/06 and replaced about 85,000 of these meters. Although only 15 per cent of maintenance visits (or 5% of the total meter population) resulted in meter replacement[20], this is a significant proportion (around 30%) of the levels of NG PPMs that gas suppliers are typically able to replace free of charge under the MSAs[21].

2.21. DCM meters generally require very little maintenance. Unlike PPMs, they generally do not require new batteries.[22] Customers also do not need to touch DCMs, whereas they need to charge up PPMs, which can lead to more faults with PPMs. Therefore, the level of meter replacement through "maintenance" visits is less significant for DCMs. NG has estimated that the total number of fault-related replacements of DCMs each year is about 11,000 replacements following from a metering call out[23] under the terms of the MSAs.

2.22. For 2005/06, NG estimated that its forward looking annual maintenance costs per meter were 25 pence[24] per year for DCMs. This represents about 2 per cent of NG's

[18] Meeting between Ofgem and Siemens, 'Note of meeting with Siemens regarding the investigation into National Grid's legacy and new/replacement metering service agreements (MSAs)', 17 February 2006, Document 10667, page 10, paragraph 10.

[19] NG Work Procedure for Maintenance of Domestic Gas Meters (October 2004), Document 11269A, page 1, paragraph 12.1.

[20] NG's Written Representations of 10 August 2006, in response to Ofgem's Statement of Objections of 17 May 2006, Document 11231, page 93, paragraph 310.

[21] See chapter 4 for further explanation.

[22] Some models of DCM meters require a periodic battery change.

[23] NG's Written Representations of 10 August 2006, in response to Ofgem's Statement of Objections of 17 May 2006, Document 11231, page 92, paragraph 308.

[24] The sum of the unplanned maintenance cost per meter and the fault related meter exchange cost per meter. Transco's Metering Charges – NGT UK Transmission from 1 May 2005 http://www.nationalgrid.com/NR/rdonlyres/A66172D1-A252-4373-8F5C-4A69EB1DCEE9/1164/TranscoMeteringChargesNGTUKTransmissionFrom1stMay0.pdf

NG has changed its methodology for charging maintenance. In 2006/07, NG estimates its maintenance costs as 15p for DCMs and £15 for PPMs, Document 11244, question 6(d). From 1 April 2007 NG estimates 56p for DCMs and £17.91 for PPMs see:

estimate of the total annualised costs associated with meter provision, installation and maintenance for DCMs. For PPMs maintenance costs are £16.95 per year, or about 35 per cent of the annual rental costs.

2.23. Finally NG or the CMO has to provide **a call centre and associated IT system** to log requests from suppliers for new meter installations and maintenance visits. These costs are allocated to the activity that results from the call being made to the call centre. They are therefore already partly reflected in NG's cost of installing and maintaining DCMs and PPMs quoted above[25].

Age profile of meters

2.24. Meters are relatively long lived assets. The age profile of NG's DCMs is shown in Figure 1 and PPMs in Figure 2. This shows that there are a significant number of relatively old meters, particularly DCMs. Over 4 million of the initial stock of legacy DCMs were over 15 years old by the end of 2004 and over 120,000 legacy PPMs were over 10 years old by the end of 2004.

2.25. The volume and density of meters will affect the cost of installation and provision of domestic meters. Higher volumes of meters are likely to allow CMOs to achieve economies of scale by, for example, securing better meter prices from meter manufacturers. Achieving density is important to lower the cost of installation by, for example, increasing the number of meters that a trained technician can install in a single day by reducing travelling time between meter installation jobs. If suppliers targeted replacement of meters over a certain age it is likely that they would achieve density, as a significant proportion of the gas meters in a particular area were installed around the same time. The introduction of natural gas in Great Britain required the conversion from town gas and installation of new gas meters, which was carried out progressively by area boards[26].

http://www.nationalgrid.com/NR/rdonlyres/BD9F4287-9B76-424A-AE6C-10B7579FD162/16090/NationalGridMeteringChargesfrom1stApril2007.pdf

[25] Letter from NG to Ofgem dated 17 April 2007, Document 11363, pages 3-4.

[26] "Society of British Industries, The First Century 1905- 2005", an illustrated history of the gas trade association by Terry Pinchin p.49

Figure 1: Age Profile of NG's legacy DCMs as of 31 December 2004

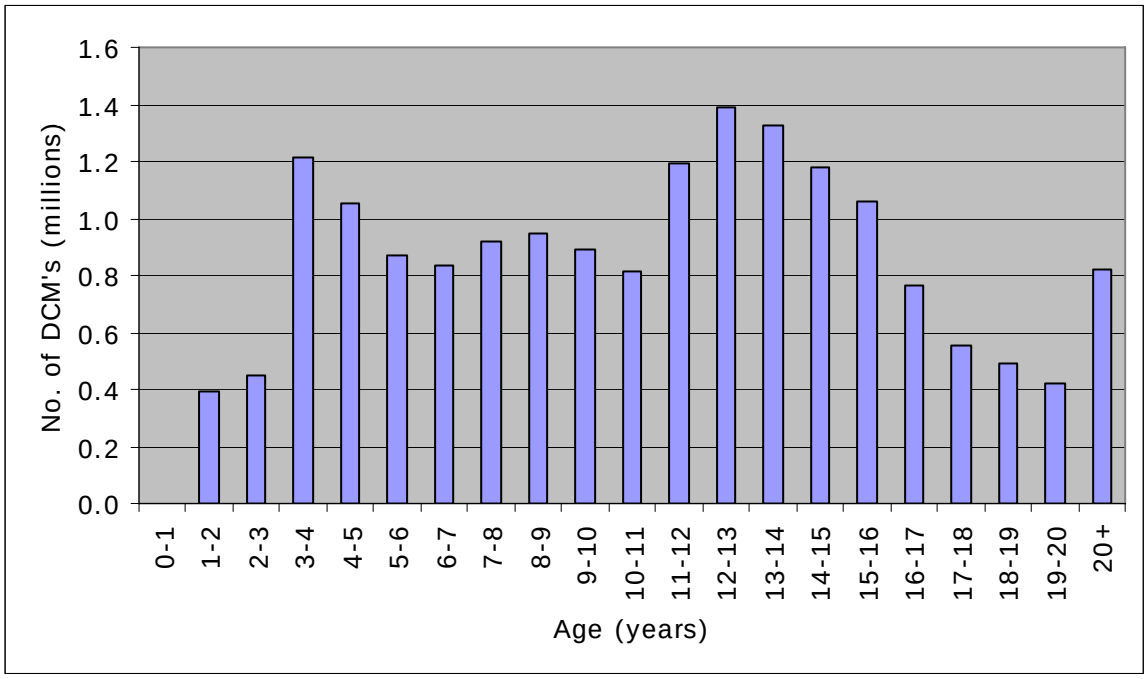
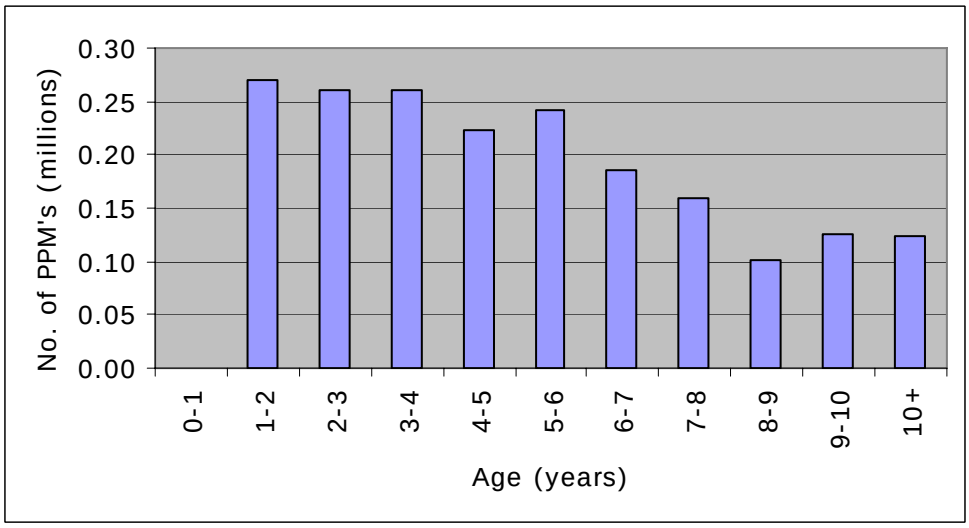


Figure 2: Age Profile of NG's legacy PPM as of 31 December 2004



The undertaking

2.26. National Grid plc[27] ('NG') is the ultimate parent company of the NG group of companies. NG subsidiaries[28] specifically involved in the activities that form the subject matter of this decision and the evolution of NG (including company name changes that have taken place) are described below. The undertaking concerned for the purposes of the Act is NG.

[27] National Grid plc is a company registered in England and Wales as company number 04031152. Its registered office is located at 1-3 Strand, London WC2N 5EH.

[28] National Grid Gas plc and National Grid Metering Ltd.

2.27. NG is one of the UK's largest utilities. It owns and operates gas and electricity transmission and distribution networks in the UK and the US and has a range of other businesses including wireless network infrastructure, gas and electricity metering and property. NG had a group-wide turnover of £8,695m[29] for the financial year 2006/07, making a profit that year of £1,396m[30]. NG holds two Gas Transporter licences under the Gas Act 1986[31].

Evolution of NG

2.28. In 1986 British Gas Corporation was privatised and incorporated as British Gas plc. Following privatisation, British Gas plc went through several restructurings resulting in its network and metering business being separated from upstream and downstream gas production, storage and supply activities and the eventual merger of the networks and metering business with the privately owned NG group whose main business at the time was owning and operating the high voltage transmission electricity system in England and Wales. The evolution is set out in more detail below.

2.29. In 1993 the Monopolies and Mergers Commission ('MMC') published a report highlighting concerns with the integration of British Gas plc's trading and transportation interests. The MMC recommended separation of these interests through the divestment of British Gas plc's trading activities. The Government responded to these findings by recommending internal separation of the business rather than divestment. British Gas plc subsequently carried out a major restructuring and formed five business divisions.[32]

2.30. In 1997, British Gas plc demerged to form Centrica plc and British Gas plc, which was renamed BG plc. The gas supply, services and retail businesses formed part of Centrica plc and the infrastructure business (including the gas metering business) became part of BG plc.

2.31. In December 1999, BG plc completed a restructuring programme resulting in the creation of a new parent company, BG Group plc. The UK regulated infrastructure business BG plc was renamed Transco plc and was separated from the other businesses within the BG Group plc. Lattice Group plc was created as the holding company for Transco plc and was demerged from BG plc.

2.32. In October 2002, National Grid Group plc, which owned and operated the high voltage electricity transmission system in England and Wales as well as other electricity transmission and telecoms assets, merged with Lattice Group plc and became National Grid Transco plc.

[29] This turnover figure is for continuing operations and has been taken from National Grid Transco Annual Report and Accounts 2006/07.

[30] National Grid Transco Annual Report and Accounts 2006/07.

[31] NG at present has two transportation licences (NTS and RDN). The NTS licence governs NG's business as the Transmission Operator and the RDN licence is a consolidation of the four unsold distribution network (DN) licences, i.e. the Retained DNs.

[32] Public gas supply, contract trading, transportation and storage, service and installation and retail.

2.33. In June 2005 National Grid Transco plc divested four of its distribution network companies to Scotia Gas Networks, Northern Gas Networks and Wales and West Utilities. This sale required the Authority's consent. The metering businesses were not included in this divestment although the meters are physically connected to the distribution networks and the new DNs have an obligation to act as meter supplier of last resort in their geographic area.

National Grid Gas

2.34. In October 2005, Transco plc was renamed National Grid Gas plc ('NGG'). NGG[33] is a wholly owned subsidiary of NG. NGG owns and operates the integrated high pressure gas transportation system in Great Britain, and 4 of the 8 local distribution networks.

2.35. NG currently owns two gas metering businesses in Great Britain: National Grid Metering Ltd ('NGM')[34] which provides gas metering services to NGG, and Utility Metering Services Ltd ('UMS'), which trades as Onstream. The MSAs and the Provision and Maintenance ('P&M')[35] contracts are between NGG and the suppliers and are regulated by Ofgem through conditions in NGG's transportation licence. UMS was established to respond to competitive tenders for metering services and is not regulated under any licence obligations under the Gas Act. NG owns almost 90 per cent of the domestic-sized gas meters currently installed in Great Britain.

2.36. NGG generated a profit of £107m on turnover of £346m[36] for the financial year 2006/07[37]. This covers all of NGG's regulated metering activities for domestic and I&C meters as well as meter reading services. NG has stated that the turnover for domestic-sized meters for both NGG and UMS, amounted to £274.7m for the financial year 2006/07.

NG's planned restructuring of its metering businesses

2.37. In December 2004 NG formally notified gas suppliers of its intention to restructure its gas metering business by consolidating Transco Metering Services Limited (now NGM) and UMS into a single company that would not be directly regulated by a licence issued under the Gas Act[38]. The MSA contracts would be novated to the new company. As a part of this restructuring NG also announced that it intended to rebalance metering charges by increasing PPM charges to a level NG views as more cost reflective and making an offsetting reduction in DCM charges. In March 2005

[33] A company registered in England and Wales, company number 2006000. Its registered office is located at 1-3 Strand, London, WC2N 5EH.

[34] Transco Metering Services Ltd changed its name to National Grid Metering Ltd on 10 October 2005.

[35] These are the regulatory contracts that contain the arrangements similar to those that existed previously under the Network Code.

[36] The turnover generated by NG's domestic gas and ancillary metering services (including legacy and new/replacement meters) was £275m for the business year 2006/7; of this NGM's total turnover was *[excised]* for the same business year, see NG's response to section 26 notice dated 24th July 2007, Document 11394A, page 10, question 9.

[37] National Grid Gas plc Annual Report and Accounts 2006/07.

[38] Letter from NG, 'NG: Transco: Restructuring Proposals- Metering', dated 2 December 2004, Document 11353A, page 1.

Ofgem consulted on the proposed restructuring[39] and invited views on any regulatory issues raised. National Grid Transco plc was originally looking to have the new arrangements in place at the beginning of April 2005. This project has been put on hold pending the outcome of this Competition Act investigation, although NG continues to inform their investors that they intend to proceed with the creation of a single metering business[40].

The introduction of competition to the domestic gas metering market

Ofgem's rationale for introducing competition

2.38. Historically, NG (then known as Transco) provided and maintained all domestic gas meters as part of their regulated monopoly transportation service. Conditions[41] for the use of NG's metering services were incorporated into the transportation Network Code[42] and NG's meter related costs were recovered through regulated gas transportation charges.

2.39. The possibility of metering competition was raised by the MMC in its 1993 report[43] referred to above. This recommended an obligation be placed on British Gas' transportation and storage business "to enable there to be competition in the provision and reading of meters in such a way as would safeguard the legitimate interests of the transportation and storage business, users and other shippers". Unbundling of meter installation and provision from the transportation price control was further discussed in its 1997 report[44], and it was noted that Ofgas[45] expected this to occur in 1998.

2.40. In 1998, having introduced competition into the domestic supply of gas,[46] Ofgas began consulting on a range of measures to secure effective competition in gas metering[47]. Although NG did not enjoy a legal monopoly in gas metering[48], Ofgem identified a number of barriers to the development of metering competition – the bundling of charges for gas metering services with those for transportation, the lack

[39] The Proposed Restructuring of National Grid Transco's Metering Business: Consultation Document, March 2005 78/05.

[40] Slide 33 of a National Grid analyst presentation labelled May '07. This is available on the National Grid website at http://www.nationalgrid.com/NR/rdonlyres/BEE187A8-8887-4976-ABD7-CA85752A6616/7662/5396NGA5bookMay06FINAL31MAY07.pdf

[41] These conditions applied to gas shippers (responsible for procuring gas and contracting for gas transportation capacity) rather than to gas suppliers themselves.

[42] A multilateral contract between gas transporters and gas shippers that sets out the key terms and conditions for access to and use of the gas transportation network.

[43] The MMC report www.competition-ccommission.org.uk/rep_pub/reports/1993/fulltext/335c2.pdf

[44] www.competition-commission.org.uk/rep_pub/reports/1997/399bg.htm#full, see page 27, paragraph 2.78.

[45] Ofgem was created through the merger of the gas and electricity regulators, Ofgas and Offer respectively, in 1999. For simplicity, we refer to Ofgem throughout this document but any decisions prior to the date of merger would have been taken by Ofgas.

[46] Full competition in the supply of gas to domestic customers was introduced in May 1997.

[47] Securing effective competition in gas metering and meter reading services - The Director General's initial proposals, Ofgem, 31 October 1998, Document 10871.

[48] Competition in metering was envisaged in the Gas Supplier's Licence (then Standard Condition 22, now Condition 12) which allows for a situation where gas suppliers make metering arrangements other than through arrangements with the transporter.

of separation of NG's metering business from its transportation business and the absence of agreed industry processes for taking metering services from CMOs[49].

2.41. Ofgem initiated a number of changes to the regulatory framework for meters to address these barriers and NG took the lead, working with the industry to develop standard industry processes and IT systems to support the data flows required in an industry structure containing a number of competing meter operators.

2.42. Ofgem expected that the introduction of competition in the metering market would result in benefits to customers as a result of meter innovation, improved service levels and/or reductions in prices[50].

2.43. The key steps in the introduction of competition are set out in Table 1 below.

[49] For more details, see: Securing effective competition in gas metering and meter reading services – The Director General's final proposals, Ofgem, May 2000, Document 10870.

[50] The potential benefits of metering competition were highlighted in the press release which followed Ofgem's policy decision to introduce gas metering competition: R/36 -Strategy to bring down metering costs and encourage innovation http://ofgem2.ulcc.ac.uk/temp/ofgem/cache/cmsattach/1081_r3601_28march.pdf

Table 1: Chronology of key events in the introduction of competition

October 1998	Ofgem publish initial proposals on metering competition
April 2000	Ofgem separated NG's transportation and metering and meter reading price controls
October 2000	NG's disaggregated domestic metering charges introduced
March 2001	Ofgem's Metering Strategy published
June 2001	BGT issue Invitation to Tender ('ITT') for metering service providers
January 2002	Industry forum established to oversee Reform of Gas Metering Arrangements project
April 2002	New tariff caps set for NG's metering services as part of transportation price control
May 2002	BGT appoint Meter Fit to provide metering services in 2 regions
November 2002	BGT's contract with Meter Fit becomes operational
December 2002	BGT and NG sign a letter of intent setting out the key terms of the MSAs and, on the same day, BGT appoints NG (UMS) to provide metering services in 4 regions
June 2003	BGT's contract with UMS becomes operational
July 2003	Powergen issue ITT for metering services
December 2003	BGT appoint Capital Meters Limited ('CML') to provide metering services provider in 1 region
January 2004	BGT sign the MSAs
February 2004	RWE npower issue ITT for metering services
April 2004	SSE, RWE npower and Powergen sign the MSAs
June 2004	BGT sign a variation agreement with Meter Fit
June 2004	Scottish Power sign the MSAs
July 2004	RGMA implemented
December 2004	Scottish Power issue ITT for metering services
January 2005	BGT sign a variation agreement with UMS
June 2005	SSE issue ITT for metering services
June 2005	Ofgem launches its investigation under the Act into NG's MSAs

Price regulation of metering services in the transition to competition

2.44. While NG's charges for gas metering services were bundled with regulated transportation charges there was little incentive for suppliers to seek alternative providers. Suppliers would have to pay the alternative meter provider but would not benefit from a reduction in their charges from NG who would no longer be providing them with meters. From 1999, NG provided a £10 annual refund to be paid to suppliers (via their shipper) if they provided their own meter. However, Ofgem was concerned that the refund did not accurately reflect the metering costs that NG would avoid and therefore did not provide appropriate signals to potential new entrants about the opportunities to compete to provide meters and related services or appropriate incentives on suppliers to contract with CMOs[51].

2.45. In its 1998 consultation[52] Ofgem proposed the separation of NG's existing transportation price control (which covered the period 1997-2002) into three components: transportation, gas metering and gas meter reading. In May 2000, Ofgem set a separate average revenue allowance for metering and required NG to charge separately for metering services. The separation of the price control was also intended to eliminate the potential for cross subsidy from transportation services to gas metering and meter reading services[53].

2.46. In April 2002, Ofgem put in place a new five year price control for Transco and as part of this set a price cap for metering (applicable only to domestic-sized meters), rather than a revenue allowance, on the grounds that[54]:

> '… a tariff cap is more appropriate in the context of the development of competition. It represents a more transparent regime for potential market entrants, and is more flexible in accommodating changes in Transco's market share and the development of new services.'

2.47. At the same time it was recognised that the shift to a price cap would mean that NG's gas metering revenues would vary with its market share[55]:

> 'It should be noted that the proposed tariff caps represent maximum prices. They do not represent a revenue entitlement. The extent to which Transco can charge up to these levels will depend on competitive pressures – and Transco's reaction to such pressures. The behaviour of Transco in this regard will be subject to the constraints of general competition law.'

2.48. Separate price caps apply for DCMs and PPMs. The price caps were designed to be a transitional measure to protect customers because NG would possess significant market power in the domestic gas metering market until competition became established and effective. Ofgem made clear that the price caps would be removed when effective competition had been established. In 2002, at the time the

[51] Securing effective competition in the gas metering and meter reading services - The Director General's initial proposals, Ofgem, 31 October 1998, Document 10871, paragraph 3.3 (a)(i).

[52] Securing effective competition in the gas metering and meter reading services - The Director General's initial proposals, Ofgem, 31 October 1998, Document 10871.

[53] Securing effective competition in gas metering and meter reading services – The Director General's final proposals, Ofgem, May 2000, Document 10870.

[54] 'Review of Transco's price control 2002: draft proposals', Ofgem, June 2001, Document 10872, page 37, paragraph 2.83.

[55] 'Review of Transco's price control 2002: draft proposals', Ofgem, June 2001, Document 10872, page 181, paragraph 8.22.

metering price caps were set, BGT was in the process of tendering for gas metering services. Ofgem expected that competition in domestic metering would develop quickly and signalled that it was likely that the caps could be removed by April 2004 at the latest[56]. This followed the same process as the domestic gas supply market where price caps remained on incumbent suppliers when the market was first opened to competition but were then removed when it was clear that effective competition had been established.

2.49. In setting the price cap, Ofgem made some adjustments to the basis on which previous regulated meter prices had been set to take account of the introduction of competition. In setting the maximum prices that NG could charge, Ofgem used a higher cost of capital than the one used for the regulated, monopoly transportation business reflecting the increased commercial risks that NG might face with the introduction of competition. The cost of capital for the metering business was set 0.75 basis points higher than the cost of capital in the transportation control in order to reflect the 'influence of competitive pressures'[57]. Ofgem also assumed shorter metering asset lives when calculating depreciation allowances for the purposes of setting the price cap. Depreciation charges were allowed based on a 15 year asset life (for new investment) and 10 years average remaining asset life (for meters in situ in 2002)[58]. The former mirrors NG's own change in depreciation policy for metering from 20 to 15 years 'in response to the opening of the market to competition'[59]. The effect of both of these decisions was to increase the maximum prices that NG could charge for its meters above the level that they would otherwise have been, although this was not intended to compensate NG fully for any potential stranding, as is explained in more detail below.

2.50. Ofgem expected that more efficient competitors would be able to undercut NG's prices and NG would have to improve its efficiency and/or lower prices, or lose market share.

Risk of asset stranding through the introduction of competition

2.51. NG expressed concerns[60] at the time of this price control review that the introduction of competition would leave it unable to earn a reasonable return on its historic investment in metering assets. NG argued that it had been legally obliged to invest in these meters[61] and should be able to earn a reasonable return on this investment. NG was concerned that, with the introduction of metering competition, it would have to reduce its prices or lose market share as competitors replaced working NG meters. The cost of purchasing new meters had halved over recent years and NG was concerned that it would be forced to reduce its prices to prevent "premature replacement" of its meters by competitors. NG argued that if it was

[56] 'Review of Transco's price control from 2002, Final proposals', Ofgem, September 2001, Document 10901, page 95, paragraph 7.19.

[57] 'Review of Transco's price control from 2002, Final proposals', Ofgem, September 2001, Document 10901, page 5.

[58] 'Review of Transco's price control from 2002, Final proposals', Ofgem, September 2001, Document 10901, page 84, paragraph 5.43.

[59] NG, Regulatory Accounts 2001/2, Document 10899, page 16.

[60] NG's Written Representations of 10 August 2006, in response to Ofgem's Statement of Objections of 17 May 2006, Document 11231, page 14, paragraph 37.

[61] Indeed, it had a licence obligation to be a supplier of last resort.

forced to respond to competition by cutting prices it would not be able to make an adequate return on the historic investments that it had been obliged to make[62].

2.52. NG documents around that time[63] show that the company made estimates of the extent to which competition might reduce the net present value of its metering revenues. The results of these calculations are often referred to in NG's documents as the costs that will be "stranded as a result of competition"[64].

Ofgem's views on potential asset stranding through the introduction of competition

2.53. Ofgem considered the issue of asset stranding through the introduction of competition at the time the price control was set. It was not clear that stranding costs would be significant. NG would start from a position of some strength and it would take time before competitors could establish sufficient scale and market share to exert significant competitive pressures on NG's prices and services. If NG was able to maintain its prices at or close to the price cap levels during this period, this would allow it to accelerate the recovery of its historic metering investments and earn a higher rate of return during this period.

2.54. Even if competitive pressures did force NG to cut prices and this reduced their metering revenues, the introduction of competition could provide compensating benefits for NG. NG could look to new markets and earn competitive and unregulated rates of return in the electricity metering market which was also being opened up to competition. And once competition in the gas metering market was established and the price controls removed, NG would be able to earn competitive and unregulated rates of return on new and replacement meters if it chose to remain in the gas metering market.

2.55. There is evidence to support this view in NG's own documents. NG's May 2002 board paper[65] evaluates the net book value of the meters at *[just over £1 billion]*, and estimates that, with the creation of UMS, the metering business could obtain a value in use in a competitive market of between *[90 and 110% of this net book value]*. The higher figure is the expected value of the business if UMS won 4 of the 7 BGT zones to supply both gas and electricity meters (which it did) and assuming that meter replacement rates are constrained by NG reducing its prices to £7.50 per annum within 3 to 4 years of the gas metering market being opened to competition.

2.56. Ofgem also considered any potential stranding costs in the context of the wider financial settlement that NG's shareholders received under the transportation price control. As part of the wider price control discussions, a significant issue had been whether Ofgem would adopt a 'focused' or 'unfocused' approach to valuing transportation and metering assets. A focused approach would involve valuing the

[62] Ibid.

[63] For example, NG internal presentation titled 'Metering Business Strategy Analysis and Comparison of Options' dated 28 February 2002, Document 26.

[64] Ibid, slide 6 notes 'Stranding costs in Transco/regulated metering need to be deducted from the proceeds/value shown in Table – including the cost of redundancies'.

[65] NG's Board Paper, 10 May 2002, Document 11347D.

assets of each of Transco's businesses according to its market value, while an unfocused approach involves applying the same market-to-asset ratio ('MAR') across the book value of all businesses within Transco. An unfocused approach had been taken by the MMC in 1993 to BG plc's transportation assets in existence on 31 December 1991. The MMC took the overall ratio of market value of BG shares to the book value of BG's business (60 per cent) at the time of privatisation and applied it equally to all BG's assets[66] when determining the opening regulatory asset value of the price controlled businesses. Ofgem decided to use an 'unfocused' approach to valuing the assets of NG's metering and transportation assets. This decision was of significant financial benefit to NG's shareholders in the context of the settlement overall. For example, in setting out calculations for the focused and unfocused approaches, Ofgem found that 'based on a cost of capital of 6 to 6.25 per cent and assuming no change to the level of regulatory depreciation, this implies a difference in Transco's revenues of approximately £120 million to £125 million per year'[67]. In its Annual Report of that year, NG commented that if Ofgem had taken a focused approach it could have "reduced Transco's regulatory value by up to £2 billion'.[68] However a consequence of the decision was that for the purpose of setting the Regulatory Asset Value ('RAV'), the metering assets continued to be valued on a historic basis rather than a forward looking one.

2.57. As explained in the Authority's final proposals:

> 'Transco has reiterated its view that the RAV for the metering business is greater than depreciated replacement cost, and that this would lead to the stranding of metering assets. Transco propose a replacement value for metering RV of £965 million[69] with the excess treated as network assets. An unfocused approach to asset valuation has been retained. In the light of this it is not appropriate to make the adjustments to metering asset values suggested by Transco'.[70]

2.58. The Authority therefore concluded that it would not be in customers' interest to use a different (and more favourable) treatment of metering assets. The unfocussed approach was applied equally to all of Transco's assets including metering. In aggregate Transco's shareholders obtained a significant net benefit compared with a 'focused' approach – a benefit Transco itself estimated at being up to £2 billion (see above).

2.59. As explained in the final proposals, Ofgem concluded, for all of these reasons, that any stranding costs arising from the introduction of domestic gas metering competition were a matter for NG's shareholders. NG could have rejected the overall price control proposals. If NG had rejected the proposals, Ofgem would have referred the matter to the Competition Commission. NG accepted the price control.

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[66] See 'Review of Transco's price control from 2002, Draft proposals', June 2001, Document 10872, page 162, paragraph 7.65. The same unfocused approach was taken by Ofgas in 1996 and by the MMC in its 1997 report.

[67] Ibid, paragraph 7.66.

[68] Transco Holdings plc Annual Report and Accounts 2001/2, Document 1, page 7.

[69] Compared to £1492 million in our proposals.

[70] 'Review of Transco's Price Control from 2002 Final Proposals' September 2001, Document 10901, page 81, paragraphs 5.35 and 5.36.

2.60. Later in 2002, having accepted the price control for metering and transportation, NG tried to reopen this issue and suggested that any stranding costs arising from the reduction in its rental charge in response to the introduction of metering competition could be recovered through an increase in their allowed revenues for their monopoly transportation business. Ofgem made clear it considered this issue settled and closed:[71]

> 'Ofgem's position is that the price control deal was a package, and Transco [NG's name at that time] accepted it as such. Given that the implications of metering competition were acknowledged in the price control review process, there does not seem to be any case for viewing this as a material change of circumstance such as to justify re-opening the control.'

Other measures to introduce metering competition

2.61. In parallel with making changes to the price control arrangements, Ofgem sought to address the other barriers to competition it had identified - the need for NG to separate its metering business from its transportation business and the need for revised industry processes, as proposed by NG. These issues were taken forward through the industry-wide Review of Gas Metering Arrangements ('RGMA'). This was a lengthy and complex process aimed at setting up standard, industry-wide processes and data flows to support all companies in the metering market and the competitive retail market.

2.62. In its May 2002 Report on Progress on its Metering Strategy Ofgem noted an agreed date of 3 February 2003 for changeover to the new processes.[72] There were a number of delays and the process finally ended in July 2004 with RGMA 'go live'[73].

2.63. Central to the strategy for securing effective competition was the 'supplier hub' principle. This principle places the responsibility on gas suppliers to appoint meter operators to provide and install meters at their customers' premises and to provide ancillary services (such as meter maintenance) in respect of those meters. The meter operator could be a gas transporter such as NG[74], the in-house metering business of a gas supplier, or a third party. Suppliers were seen as being best placed to respond to customer demand for better service standards and more sophisticated meters, and, under the supplier hub approach, are able to select meter operators through competitive tenders.[75]

2.64. As noted above, previously the contractual relationship had been between NG and gas shippers under the terms of the Network Code. Suppliers are not parties to the Network Code and the move to the 'supplier hub' principle required new contracts to be developed as well as changes to the licence framework. Thus, as part of

[71] Letter from Ofgem to NG dated 11 October 2002, Document 586, page 1.

[72] 'Ofgem's strategy for metering report on progress and next steps', May 2002, Document 11345, page 2.

[73] The completion date was originally planned to be December 2001 (as set out in Ofgem's project proposal for RGMA of August 2000).

[74] Gas Transporters are: NG, the 4 sold distribution networks (Scotland Gas Networks, Northern Gas Networks, Southern Gas Networks, Wales & West Utilities) and 5 independent Gas Transporters.

[75] The principle was set out in internal documents produced by NG in December 1999 and April 2000 and is described in 'Securing effective competition in gas metering and meter reading services – The Director General's Final Proposals', Ofgem, May 2000, Document 10870.

RGMA, stand-alone contracts were developed for the provision and maintenance of meters which embodied the 'supplier hub' principle (the P&M contracts).

NG's P&M contracts

2.65. The NG P&M contracts contain arrangements that are similar to those which had existed within the Network Code. A key feature of these contracts is that gas suppliers are able to replace NG's meters at 48 hours' notice (without incurring any additional charges). NG set prices under the P&M contracts in line with the maximum price levels allowed under its metering price control.

Gas suppliers' response to the introduction of competition – the CMO contracts

2.66. BGT[76] was the first gas supplier to respond to the opportunities presented by the introduction of competition in gas metering. In 2001 BGT issued a tender for both gas and electricity metering services and for the purpose of the tender divided Great Britain into seven regions to allow them to appoint potentially a number of different CMOs. They commenced negotiations with CMOs including Meter Fit Limited ('Meter Fit') (a special purpose vehicle created by United Utilities), Capital Meters Limited ('CML') created by Siemens, and the NG-owned metering business ('UMS')[77]. This process began to reveal the cost savings and service improvements[78] that gas suppliers could achieve by appointing competing meter operators[79]. According to an RWE npower document[80]:

> 'MeterPlus [RWE npower's own metering business] bid a charge of just under £10 per credit meter to BGT… and this was 'significantly' undercut by United Utilities'.

2.67. In May 2002 BGT announced the appointment of United Utilities/Meter Fit as their meter provider in North Wales and North West and North East England. The contract became operational later in 2002 (given the delays in RGMA 'go live' Meter Fit had to develop bespoke metering systems to support the new contract[81]). BGT subsequently signed meter contracts with UMS in 2002 and also with CML in 2003.

2.68. To date, BGT remains the only supplier to have contracted with a competitor to NG for domestic-sized meter services. Other suppliers, including RWE npower, Powergen, SSE and SP have issued tenders but have put them on hold. In RWE npower's case this was due to the uncertainties within the industry (such as, for

[76] Centrica is the parent company of British Gas Trading (BGT), which is the gas supplier in the UK. In some parts of this Decision we refer to Centrica.

[77] NG Presentation to Lattice Excom, 12 March 2002, Document 37, slide 3.

[78] A potential new entrant offered DCM £10.32 pa and PPM £35 pa for the provision, installation and maintenance of meters. A potential new entrant also offered to tighten management of metering data and meter transactions and to rationalise the number of Meter Operators by monitoring their performance in order to drive up service levels.

[79] With 65 per cent of the domestic gas supply market, BGT could afford to go out to tender ahead of the new metering systems being in place. See ibid, slide 4 for NG prediction of BGT's cost savings.

[80] Internal RWE npower document titled 'Transco JAM –Contract Recommendation Business Case for Approval', January 2004, Document 4739-4, page 7.

[81] See 'Note of a Meeting with Meter Fit and United Utilities regarding the investigation into the NG legacy and new/replacement metering service agreements', 6 March 2006, Document 10766, page 2, paragraph 5.

example, Ofgem's investigation into the MSAs and the potential merger of the NG metering businesses)[82]. Some of the key provisions of BGT's CMO contracts, in terms of meter replacement issues, are summarised below.

Early replacement charging arrangements

2.69. A key feature common to the CMO and UMS contracts is that removal of a meter that was installed under the contracts can result in an early replacement charge becoming payable (referred to in the contracts as a Technology Replacement Payment)[83]. However, no early replacement charge is payable if a meter is identified as faulty (for example on a maintenance visit), or as part of a batch of meters that have been found to be insufficiently accurate and/or unsafe[84]. The level of the early replacement charge that is payable on removal of a given meter depends on the number of years that have elapsed since that specific meter was installed, with the charge declining each year. The charges fall to zero on PPMs older than 10 years and there is no provision for charges on DCMs older than 20 years.[85]

2.70. Under NG's UMS contract the charges decline as the age of the meter increases, except when the cumulative level of meter replacement is greater than or equal to 50 per cent of the number of meters for which UMS is continuing to receive a meter rental charge. In this case, an early replacement charge applies over longer time periods (25 years for DCM, and 13 years for PPM).[86]

The option to unbundle maintenance provision

2.71. The UMS and CMO contracts each define an 'Initial Period' of five or seven years[87] (which BGT may extend by up to 3 years[88]) in which the relevant CMO will be the exclusive provider of metering services, including maintenance, within the relevant BGT area (aside from where services are provided by NG under contractual arrangements related to its existing meter stock). However, after the initial period has ended, in some cases, BGT may instruct a new CMO to carry out meter maintenance. Under the UMS contract, BGT may permit a CMO to carry out

[82] RWE npower's response to a section 26 request for information, dated 10 November 2005, 24 November 2005, Document 6344, question 4.

[83] BGT's contract with Meter Fit, 20 May 2002, Document 4684A, clause 8(g), BGT's contract with UMS, 20 December 2002, Document 4698, clause 7(g), BGT's contract with CML, 8 December 2003, Document 4709, clause 8(g).

[84] BGT's contract with Meter Fit, 20 May 2002, Document 4684A, clauses 8(g) and 11(p), BGT's contract with UMS, 20 December 2002, Document 4698, clauses 7(g) and 10(p), BGT's contract with CML, 8 December 2003, Document 4709, clauses 8(g) and 11(p).

[85] There is no charge for PPMs installed more than 10 years previously and no provision for a charge to be calculated on DCMs installed more than 20 years previously. See BGT's contract with Meter Fit, 20 May 2002, Document 4686, Schedule 2, clause 4 and Appendix 6, BGT's contract with UMS, 20 December 2002, Document 4700, Schedule 2, clause 4, Appendix 6 and 6A, BGT's contract with CML, 8 December 2003, Document 4711, Schedule 2, clause 4 and Appendix 6.

[86] BGT's contract with UMS, 20 December 2002, Document 4698, clause 27(a)(i) and Document 4700, Appendix 6(a).

[87] Note of meeting with Meter Fit, Document 11261.

[88] BGT's contract with Meter Fit, 20 May 2002, Document 4684A, clause 8(c), BGT's contract with UMS, 20 December 2002, Document 4698, clause 7(c), BGT's contract with CML, 8 December 2003, Document 4709, clause 8(c).

unplanned maintenance work[89]. BGT's contract with CML makes no distinction between planned and unplanned maintenance work during the secondary period, which enables BGT to contract out all maintenance work to any newly appointed CMO[90].

2.72. Whilst Ofgem does not have sufficient evidence to suggest that CMOs are offering (or are willing to offer) maintenance as a stand-alone service there are providers of maintenance services that are `willing to provide maintenance as a complement to other activities such as meter replacement (or electricity meter maintenance and maintenance of non-domestic gas meters). For example, MeterPlus (a subsidiary of RWE npower) has entered contracts (known as 'churn contracts') with npower for the provision of maintenance and other ancillary services to non-NG gas meters that npower may acquire as a result of BGT customers whose meter is provided by a CMO switching supplier to npower[91].

2.73. BGT and CML also wanted the CMOs to be allowed to maintain NG meters in order to supplement meter replacement work. In an email between BGT and CML, BGT explained that it was reducing the volumes of meter replacement for CML partly due to NG's policy not to allow meter maintenance:

> "The current Transco prepayment charges include maintenance and Transco have asserted the right to maintain its own meters under para 3(3) of the Gas Code, which appears in Sch 2B of the Gas Act 1986. As we continue to pay for maintenance on these meters, we will be asking Transco to continue to maintain their meters, rather than our Meter Operator attending and replacing the Transco asset on call out." [92]

Development of NG's MSAs

2.74. By early 2002 it was clear to NG that new entrants were able to undercut its meter rental and maintenance charges and potentially to offer better customer service. In April 2002, the Group Executive Committee was informed of the potential financial impact of competition upon NG in these terms:

> 'All [our gas metering] financial parameters are under significant threat. The underlying cause is that metering is not a natural monopoly and the cost of installing a new meter is well below the Regulatory or even the Book Value of Transco's existing installed base. The Regulatory Value of Transco meters is roughly £70/meter. The Book Value is roughly £60/meter. A new credit meter can be installed today for roughly £40/meter… the charge to a shipper for renting the meter might be only about £8/meter/year versus Transco's price capped allowance of £12.90/meter/year [….]
>
> British Gas are [sic] large enough to be willing to face the challenges of organising their own metering in the interests of saving, eventually upwards of *£[60-70]* million/year of metering costs across their domestic customer base[93].'

[89] BGT contract with UMS 20 December 2002, Document 4698, clause 10(y)(i)

[90] Response to section 26 Notice 28 April 2006, Document 10898, page 8.

[91] Response to an Ofgem information request from MeterPlus, received on 29 September 2005, Document 5996, page 2, response to question 1a. UMS has also entered into such contracts see Response to an Ofgem request for information provided by UMS, 5 October 2005, Document 6006, page 10 answer to question 3.

[92] Email from BGT to CML, subject "Volumes" dated 18 March 2003, Document 8357.

[93] Paper to Lattice Group PLC Executive Committee titled 'Metering: Background and Issues', 16 April 2002,

2.75. In February 2002, NG started drawing up a strategy to address the risk that gas suppliers would replace NG meters with those of CMOs[94]. One of the options considered was a proposal to modify the Network Code (regulatory) arrangements in order to allow the introduction of exit charges for the early replacement of NG meters. There was a dialogue with Ofgem on this proposal (which is discussed in greater detail in Chapter 6) but no formal proposal for such an amendment was made. The strategy which NG developed in respect of domestic meters[95], named 'Project Jam'[96], involved getting gas suppliers to sign alternative long term contracts with charges for early replacement in exchange for a reduced annual rental charge. NG assessed a number of alternative approaches, including the option of selling its legacy meter portfolio and reducing the rental price to market levels[97]. It selected the long term contract option because it provided maximum shareholder value and because the new contracts would allow novation of the contract terms if NG decided to sell its metering assets to other companies[98].

2.76. Project Jam was implemented initially by getting BGT[99] – the largest gas supplier with a domestic gas market share at that time of circa 65 per cent – to sign up to a set of business principles (contained in a Letter of Intent[100]). As part of the package to encourage BGT to sign the Letter of Intent, NG promised to backdate the rental savings provided through the new agreements to May 2003 if RGMA 'go live' (at which point systems would be available to allow the new lower prices to be implemented) occurred after that date. The one-off payment made to BGT to cover these backdated savings eventually amounted to £13.5 million– or £1.20 per legacy meter at the beginning of 2004.[101]

2.77. NG also appears to have suggested it would not sign the deal between its subsidiary UMS and BGT unless a Legacy deal was agreed[102]. The following statement is taken from a BGT board paper:

Document 60, page 1, paragraphs 2 and 4.

[94] Handwritten notes of internal NG meetings on 5 February 2002 and 7 February 2002, Documents 19A, B, C and D.

[95] The arrangements are intended to cover meters of the type used in domestic premises, As such, they include meters "up to 11 SCMH" (this figure relating to maximum badged capacity of meters covered by the arrangements – Industrial and Commercial meters would not be covered by a contract that goes up to 11. Despite there being no such thing as a meter with a capacity of 11 SCMH, NG has not been able to explain why this contract goes up to 11).

[96] This was the internal codename at NG. The MSAs are occasionally referred to as the 'Jam contracts' or the 'Jam arrangements' internally. It is apparent that some sensitivity was felt during the later stages of Project Jam about the project name. *[Excised]* at Transco Metering Services Limited, in forwarding a draft press release by email mentioned 'You may also wish to change the file title (i.e. not use the Jam word) before sending on any further', Document 2976. NG has since clarified that the codename stems from the fact that the contracts are designed to 'preserve' the value of NG's metering stock and that the concern regarding the press release was in relation to the use of an internal code name in an external document.

[97] There are several presentations in the evidence that assess the relative value from different strategies, including for example a NG internal presentation titled 'Metering Business Strategy Analysis and Comparison of Options', 28 February 2002, Document 26.

[98] The P&M contracts do not allow for contract novation upon the restructuring of NG.

[99] NG Board Subgroup Minutes, 10 December 2003, Document 2947, page 2.

[100] Attachment to an internal BGT email, dated 20 November 2002, titled 'Principal Commercial Terms of New Metering Charging', Document 6411. The Letter of Intent indicated that gas suppliers would be able to purchase NG's meters at any time. NG subsequently changed its mind on meter sales and this aspect of the letter is not reflected in the MSAs.

[101] Internal NG email dated 9 December 2003, Document 2671, sets out the full package offered to BGT on 8 December 2003.

[102] See paper 'Long term contract with Transco for provision of gas meters' to the Centrica Board attached to an

> 'Negotiations have been substantially completed to award four of the seven new commercial meter operator contracts to Transco's new unregulated metering business, UMS. Although there is no direct linkage between the two deals, the new NG Board is concerned that, in the absence of a deal on Legacy meters, we could be using their subsidiary to destroy value in their regulated business through an accelerated meter exchange programme. They have therefore indicated that they would be unwilling to sign the new commercial contracts, unless there was an understanding that British Gas would agree to a Legacy deal. If the commercial contracts could not be awarded to UMS, there would be a delay in delivering the benefits from competition, whilst alternative meter operators were sought'[103].

2.78. Having persuaded BGT to sign the letter of intent, NG then developed the contract in discussions with BGT and a 'cross section of Transco's metering customers (the Consultation Group).'[104] The resulting contracts became known as MSAs and for those suppliers who signed them they replaced the P&M contractual arrangements for domestic-sized gas meters negotiated as part of the RGMA process. There were two sets of MSAs – one covering Legacy meters which were already in situ at the time and another covering new and replacement meters ('N/R').

2.79. From NG's perspective, the rationale for BGT to sign the MSAs was[105] that BGT could save close to £5/meter/year (compared to NG's regulated price not CMO's prices) on every Transco meter they replaced. Moreover, if British Gas were willing, they could trade-off their ability to secure a large discount on an initially small, though growing population of meters, for the ability to secure a smaller, though still sizeable discount on all the meters they needed for their customers.

2.80. In January 2004, BGT signed the MSAs in respect of both legacy meters and N/R meters. NG then used the fact that BGT had agreed to the MSA to encourage other gas suppliers to follow suit[106]. The MSAs were a 'once and only' election[107] such that BGT (and other gas suppliers) could not revert back to the P&M arrangements once they had signed the MSAs.

2.81. A similar incentive payment per meter to the one provided to BGT was given to all those gas suppliers who signed the contract before the end of March 2004[108] and the formula for this payment is contained within the legacy MSA contract[109]. The evidence is that this had an impact on the decisions of gas suppliers to sign the MSAs. For example, RWE npower's contract recommendation refers to 'the

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email on 15 November 2002, Document 5867, page 2. See also internal email sent on 20 November 2002, Document 6411, page 1, internal email sent on 31 October 2002, Document 6423, and response provided by Centrica to an informal Ofgem information request, Document 10474, page 14.

[103] See paper 'Long term contract with Transco for provision of gas meters' to the Centrica Board attached to an email on 15 November 2002, Document 5867, page 2.

[104] Paper to NGT Board Sub Group 'Project Jam – Contract Approval Paper', 10 December 2003, Document 2650.

[105] 'Metering: Background and Issues' a paper presented to the Lattice Group Plc Executive Committee dated 16 April 2002, Document 60, page 2, paragraph 11.

[106] Draft paper 'Gas metering: legacy contract offer from Transco' to the SSE Board, dated 25 March 2004, Document 4756, page 1.

[107] NG hand written note of meeting, 12/08/03, Document 2165

[108] SP for example entered into the MSAs in July 2004 and as such received a reduced incentive payment.

[109] Legacy MSAs, paragraph 5.4 (formula term 'V').

additional benefit of £2m if the contract is signed before the 31st of March'[110]. RWE npower signed its MSAs with NG by the deadline for the contracts to enter into force on 1 April 2004[111].

2.82. Between January and August 2004, SSE, Yorkshire energy, RWE npower, Scottish Power, Contract Natural Gas, Telecom Plus, EME, EON, Powergen Ltd, YE Gas, Scottish Energy Retail Ltd, Total Energy and Reepham all signed both the legacy and the N/R MSAs. At that time, these parties represented 95.1 percent of domestic-sized gas meters owned by NG[112]. The Authority has calculated that 93 per cent of the total domestic gas meter points in Great Britain in 2004 were covered by the MSAs. The only main gas supplier not to sign the MSAs, but rather to remain on the P&M arrangements (which allowed penalty free termination), was EDF Energy.

2.83. Although there are separate contracts for legacy and N/R meters, there are links between the two. There is evidence that NG wanted to avoid steering gas suppliers down the path which led them to sign the Legacy and not the New/Replacement deal[113]. There clearly was also some confusion amongst suppliers about whether the contracts could be separated. While the incentive payment mechanism was set out in the legacy part of the agreement, it was, in EDF Energy's view, even at a very late stage in the development of the contracts, 'tied to the signature of both the Legacy and N/R MSAs'[114]. BGT has also told us that it was keen to finalise the terms of the Legacy MSA but that NG 'appeared to be making this contingent upon agreement of the New/Replacement MSAs'[115].

2.84. NG has subsequently said that BGT's understanding was incorrect and that there was no such linkage. Although NG appears to have consistently made the point in writing to gas suppliers that there was no requirement to sign the Legacy and the N/R contracts together, in practice, negotiations on the two contracts took place in parallel and no gas supplier signed only one of the contracts (of the thirteen individual counterparties). In every case the counterparties signed both documents on the same day.

2.85. The MSAs are structurally complex and long contracts: the Legacy MSA is 143 pages long and the N/R MSA runs to 127 pages. Each MSA[116] contains two parts: one for the arrangements prior to completion of the RGMA process[117] and one for the arrangements following the completion of the RGMA process. Prior to the RGMA process being completed, the contractual arrangements were between NG

[110] Transco JAM – Contract Recommendation Business Case for Approval, January 2004, Document 4739-4, page 5.

[111] RWE npower's response to a section 26 request for information 1 August 2005, Document 4735, question 1.

[112] Internal NG email dated 1 April 2004, Document 3433, sets out the list of gas suppliers who signed the MSAs.

[113] Internal NG email, 'Customer Scenario Modelling', dated 25 May 2004, Document 3584, page 2.

[114] Letter from EDFE to NG, 'Transco Legacy MSA', 11 July 2005, Document 5775, page 1.

[115] BGT response to Ofgem's questions 8 February 2006, 22 February 2006, Document 10474, page 12, response to question 11.

[116] We refer to these for the sake of convenience as separate contracts. It is not in our view important to the competition law analysis whether the contracts are legally distinct as a matter of English contract law.

[117] The RGMA process is described above.

and gas shippers.[118] Since the completion of the RGMA process in July 2004, the contractual agreement has been between NG and gas suppliers. In other respects, the contractual arrangements that applied before and after the completion of the RGMA process are broadly similar.

2.86. A number of key provisions of the Legacy and the N/R MSAs – and particularly those that relate to meter replacement - are described below.

The Legacy MSAs

2.87. A Legacy meter is defined under the MSAs as a domestic-sized meter that was installed by NG on or before 1 January 2004. The opening population of meters – as at 1st January 2004 – that has been subject to the provisions of the Legacy MSAs included 17.6 million DCMs[119] and 1.9 million PPMs.[120] The Legacy meter stock had fallen to 14.2 million DCMs and 1.1 million PPMs by December 2006.[121] The essence of the Legacy MSA is that it is an 18 year contract with suppliers committed to renting a minimum number of meters for each year of the contract or to pay additional charges.

2.88. The Legacy MSA includes a 'scheduled' aggregate number of rented legacy meters as at the end of each month. Unless a gas supplier's domestic gas market share has changed (which is adjusted for in the calculation of the scheduled number of rented legacy meters), the provisions are such that the scheduled number of rented meters declines, in a uniform manner, to zero over time[122]. The schedule is defined separately for DCMs and PPMs. The DCM schedule declines to zero over 18 years (216 months) and the PPM schedule declines to zero over 7 years (84 months). These scheduled profiles for the decline in the aggregate number of rented meters are typically referred to as the Legacy MSA **"glidepath"**.

2.89. If a supplier's stock of legacy DCMs or PPMs falls below the respective scheduled rented levels defined under the glidepath arrangements in any given month, the supplier must pay ***early replacement charges***. The glidepath effectively defines an aggregate permitted allowance (5.5% of DCMs and 14% of PPMs in the first year of the contract) for meter replacement which will not give rise to early replacement charges.

2.90. The form (and level) of early replacement charges that the supplier must pay depends on the extent to which this glidepath allowance is exceeded. In particular:

- If gas suppliers replace NG's meters so that the remaining legacy meter stock is between 90% and 100% of the glidepath number, the supplier will pay NG the full monthly rental charge on each meter that it was scheduled to rent at that point in time. The annual rental in the first year of the

[118] A gas shipper is any person granted a licence under Gas Act 1986, Section 7A(2) to arrange for gas to be introduced into, conveyed by means of or taken out of a pipeline for the purposes of the supply of gas to a particular premises. Prior to RGMA, gas shippers had the contractual arrangements with NG for gas meters.

[119] NG's written response to section 26 notice dated 19th January 2007, Document 11272, page 1, question 1, Table 2.

[120] Ibid.

[121] NG's written response to section 26 notice dated 12th January 2007, Document 11269, page 2, question 3.

[122] If the supplier's market share has changed an adjustment is made to the "scheduled" number.

contract payable on most of NG's DCMs was about £11 and on an NG PPM was about £30[123]. These charges are referred to as '**Take or Pay**' charges, since - within this zone - suppliers are required to pay rental charges as though their remaining stock were equal to the glidepath, *irrespective of its actual level*.

- If gas suppliers replace enough NG meters so that the remaining legacy meter stock is less than 90% of the glidepath amount, then the supplier must pay NG a **Premature Replacement Charge (PRC)** per meter, on the shortfall between the level of its remaining stock and 90% of the glidepath amount. For the first year of the Legacy MSAs, the PRC was set at £57 per DCM and £37 per PPM[124].

2.91. The Legacy MSA defines two sets of PRCs that can apply for each relevant year of the contract, for each meter type. Under the contract, if NG considers that a gas supplier has been replacing a 'disproportionate' number of young legacy meters[125], it has the right to require that a ***higher level of PRCs*** are payable. The early replacement charge provisions of the Legacy MSA may be higher if NG decided that a disproportionate number of young meters have been removed.

2.92. In earlier deliberations, NG had intended that PRCs would be age-related and had considered introducing a type of 'Glass's Guide'[126] which outlined the cost of meters of different ages:

> 'All these charges could be incorporated into a book similar to a Glass's Guide for new and used cars. Example: Shipper buys a meter from Transco at £75. Shipper decides to replace the meter in 5 years time and pays a charge say £40 (..). Shipper decides to replace the meter in 5 years time and pays a charge say £20. [Or) Shipper buys a 10 year old meter from Transco for £20… shipper replaces meter after 5 years and pays a charge of £7 and so on. The charges could be expressed as rental charges instead of purchase prices. Transco could waive the exit charge if the meter is not fit for purpose. It looks on the surface to be complicated but if you think of Glass's Guide it incorporates far more numbers than this guide would.'

2.93. Under the Legacy and the N/R MSAs, the rental charge is a single charge that includes maintenance services. Suppliers are required to purchase maintenance services from NG for all NG meters. There is no option to secure maintenance services from a third party. Since maintenance visits will in many cases result in a meter being replaced, this requirement means that some portion of a supplier's meters will be replaced by NG, even when that supplier has elected to have its meters replaced by a CMO. These meters will then be provided under the N/R MSA.

Required meter replacement

2.94. Although the glidepath in the Legacy MSA allows a certain number of meters (5.5% of DCMs and 14% of PPMs in the first year of the contract) to be replaced free by CMOs (i.e. without an early replacement charge), the suppliers' scope for replacing

[123] Legacy MSA, Schedule 7, Part clause 2.1. These were the April 2003 prices.

[124] Legacy MSA, Schedule 7, Part 2, clause 3.1(i).

[125] Legacy MSA, Schedule, Part 2, clause 3.3 and Legacy MSA, Annexure A, Schedule 7, Part 2, clause 3.3.

[126] NG internal email, 10 June 2002, Document 208, page 2.

NG meters without paying early replacement charges is in practice much more limited. There are certain meters which, for operational or contractual reasons, have to be replaced each year. It is important when discussing 'free' meter replacement to distinguish between free in the sense of no charge being applied and free in the sense of an option to replace or not. As is explained in more detail in Chapter 4, after deducting non-optional meter replacements from the glidepath allowance, gas suppliers are left with only 13% of their DCM 'free' allowance, which accounts for less than 1% of their legacy meter stock in the first year of the contract. This figure represents the ***degree of discretion*** suppliers have in choosing which meters to replace. The proportion of the meters identified above that are ***free*** to replace under the MSAs in the sense of free of charge and optional will depend on the impact of maintenance (where this leads to replacement by NG[127] – thus reducing the pool available for third party replacement) and the ability to comply with NG's policy replacement schedule. These are discussed below.

2.95. First, as explained previously, suppliers will have to make a number of **functionality changes** each year swapping between DCM and PPM and vice versa to help with managing customer debt (a customer on a PPM has to pay in advance rather than in arrears and so is normally less likely to get into debt with a supplier) or in response to a customer request (e.g. if a customer with a good credit history moves into a property with a PPM and requests a credit meter). There have been between 85,000-98,000 DCM to PPM exchanges and between 57,000 and 72,000 PPM to DCM exchanges each year so far[128]. Meters replaced because of functionality changes are subtracted from the number of 'free' meter replacements permitted under the MSAs. The number of meters that suppliers are free to choose to replace without incurring a charge is reduced by the number of these non-optional changes.

2.96. The second category of non-optional meter replacement which occurs is in connection with **maintenance**, which will often lead to replacement of the meter by NG, in particular for DCMs. This further reduces the number of meters that suppliers can choose to be replaced by a CMO without paying an early replacement charge.

2.97. The third category is **policy replacement** where, under the terms of the MSA the supplier is required to replace a certain number of meters each year from a schedule prepared by NG. This is explained in more detail below.

Policy replacement provisions

2.98. NG is responsible, in its role of Gas Act owner, for ensuring the accuracy and safety of its legacy meters. As part of this role, NG identifies batches of meters that require what NG calls "policy replacement" (following inadequate operational performance in sampling tests). Under the legacy MSAs, policy replacement requirements are addressed by the 'Replacement Schedule'. The Replacement Schedule is the pool of meters, listed by serial number, that the supplier may choose meters from for replacement. The supplier must replace the required

[127] These meters will then be provided by NG under the long-term N/R MSA arrangements, even where the counterparty has "elected" out of the N/R MSA.
[128] NG's response to a section 26 information request, 10 August 2007, Document 11400A, question 2.

number of meters from the replacement schedule in a given year, as explained below[129]. Where a supplier has elected to use a CMO, NG must provide the supplier with a replacement schedule each contract year.

2.99. NG also specifies the number of these meters that must be replaced in each year (the 'Replacement Number'). If a gas supplier has elected to use a CMO to replace NG's meters, it must ensure that 90 per cent of the Replacement Number is replaced[130]. Otherwise NG retains the right to employ its own workforce to replace these meters, which will be charged to the gas supplier and then placed within their new/replacement portfolio.

2.100. In November 2005, NG invoked these rights in relation to 197,373 meters on BGT's replacement schedule, given an identified shortfall in the policy replacement levels undertaken by BGT's CMOs[131].

2.101. The Legacy MSA also defines a 'Maximum Replacement Number' for each contract year. This is the maximum level at which NG can set the Replacement Number. Whilst the contract provides that this maximum will not ordinarily be exceeded, NG can, under certain circumstances, increase the number at the start of any replacement year[132].

2.102. To date, NG has not identified any PPMs as requiring policy replacement under the Legacy MSA although NG has stated that, at BGT's request, some PPMs have been put on the replacement schedule in order to assist its planning of meter replacement activity. For DCMs, the Replacement Number has been set equal to the Maximum Replacement Number defined under the contract for each Legacy MSA signatory. This was about 600,000 DCMs in total in 2004. This is equivalent to 62 per cent of the total number of DCMs that could be removed under the glidepath in that year under the Legacy MSAs without early replacement charges becoming payable[133].

2.103. In each year that the Legacy MSAs have been in force, NG has identified substantial numbers of relatively young DCMs requiring replacement because batches of meters have been found to be potentially inaccurate. For example, in 2004, 5 per cent of Legacy Meters on the Replacement Schedule were less than 10 years old; in 2005, this number increased to 21 per cent. In 2006 the figure was 17 per cent (and 21 per cent of PPMs).[134] The fact that these relatively young meters have been identified by NG as requiring replacement, has no bearing on the extent to which early replacement charges might become payable.

[129] Legacy MSA, Schedule, Part 2, clause 7 and Legacy MSA, Annexure A, Schedule 7, Part 2, clause 7.

[130] Legacy MSA, Schedule, Part 2, clause 16 and Legacy MSA, Annexure A, Schedule 7, Part 2, clause 16.

[131] NG's written response to section 26 notice dated 19th January 2007, Document 11278, question 2.

[132] Legacy MSA, Schedule, Part 2, clause 11 and Appendix 5, Part II; Legacy MSA, Annexure A, Schedule 7, Part 2, clause 11 and Appendix 5, Part II. The effect of an increase in the maximum replacement number is that suppliers can remove more of NG's meters while the non-policy allowance remains undiminished.

[133] NG's written response to section 26 notice dated 12th January 2007, Document 11274, question 11.

[134] NG's written response to section 26 notice dated 19th January 2007, Document 11278, question 2.

Contract termination provisions

2.104. The MSAs remain in force until they are terminated or all meters covered by the contracts are replaced[135]. If a gas supplier wishes to exit the Legacy MSA, then (in the absence of contract breach by NG), a termination charge is payable on a per meter basis[136].

2.105. Finally, there are provisions relating to 'partial termination' which appear initially to have been particularly obscure. The provisions meant that if a gas supplier 'partially' terminates the legacy MSA, a termination charge is also payable on a per meter basis. A gas supplier is considered to have 'partially terminated' its contract if there is a decrease in the number of legacy meters that it rents, which is not in NG's opinion attributable to customer-initiated change in supplier[137]. This created ambiguity as to whether these charges would apply instead of or in addition to early replacement charges. In November 2006, over a year after the Competition Act investigation was launched and six months after the SO was published, NG amended the relevant provisions[138] to make it clear that partial termination charges would not apply to meter removals where PRCs were payable.[139]

The New and Replacement MSA

The N/R meter population

2.106. A N/R meter is defined under the MSAs as a domestic-sized meter that was installed by NG after 1 January 2004. By December 2006, 1.3 million DCMs and 0.42 million PPMs were being rented under NG's N/R MSAs[140]. Approximately 86 per cent of these DCMs and 95 per cent of the PPMs resulted from meter replacements (with the remainder in each case being accounted for by 'new' meters)[141].

2.107. Even if a supplier has appointed a CMO and 'elected' out of the N/R MSA and appointed another meter provider it will not be able to avoid taking meters from NG under the N/R MSA. When NG provides 'maintenance' under the Legacy MSA, and this results in a change of meter this meter will have been installed after 1 January 2004 and is governed by the N&R MSA. BGT is in this position.

[135] This was not inadvertent: see email from Powergen to NG, dated 11 March 2004, Document 3235, page 1, where Powergen expressly raised the issue with NG as to the absence of any actual term in the arrangements. Also see email reply from NG to Powergen, dated 12 March 2004, Document 3244, page 1, where it is confirmed by NG that 'you are correct in thinking that there is no defined term in the contract'. See also Legacy MSA, Annexure A, clause 6.2 and New/ Replacement MSA, Annexure A, clause 6.2.

[136] Legacy MSA, clause 12.3 and Legacy MSA, Annexure A, clause 12.6; New/ Replacement MSA, clause 12.3 and New/ Replacement MSA, Annexure A, clause 12.6.

[137] Legacy MSA clause 18.8 and Legacy MSA, Annexure A, clause 25.2.7.

[138] By 24 July 2007, the amended agreements had been signed by all MSA signatories except BGT, SP and RWE npower, Document 11392 A.

[139] Generic copy of NG's amending agreement to the Legacy MSAs Document 11392 B, clause 25.2.7, Schedule 7, Part 2, clause 4.4 and Appendix to Schedule 7, Part II, Partial termination payments.

[140] NG's written response to section 26 notice dated 12th January 2007, Document 11272, page 4, question 1.

[141] NG written response to section 26 notice dated 12th January 2007, Document 11272, pages 2-4, question 1.

Early replacement charge provisions

2.108. As with the Legacy MSA, the N/R MSA provides for a Premature Replacement Charge ('PRC'). However, the PRC arrangements under the N/R MSA differ from those provided for by the Legacy MSA. There is no glidepath and, unlike the Legacy MSA, the level of PRC payable under the N/R MSA relates to characteristics of the specific meter(s) being replaced. Indeed, the factors that determine the level of PRC payable are, in practice, very similar to those that apply under the CMO contracts. In particular:

- The level of PRC payable in relation to the replacement of a given meter is related to (and declines with) the number of years that have elapsed since the meter was installed.
- A PRC is not normally payable when a meter is replaced as a result of it falling within the minimum number of meters (i.e. Replacement Number) that NG has identified as requiring replacement[142].

Other provisions

2.109. The N/R MSAs also require suppliers to purchase meter maintenance services from NG. The appointment of a third party maintenance provider is not allowed.

2.110. Policy replacement provisions under the N/R MSA operate in the same way as under the Legacy MSAs, with NG providing a policy Replacement Schedule, setting a minimum number of meters that must be replaced from this schedule each year and reserving the right to make the replacement itself if a supplier, having made an election, fails to meet this minimum. The Authority's understanding is that as yet there have been no meters on the policy replacement schedule for new and replacement meters.

2.111. Termination charges and partial termination charges apply in similar circumstances as in the Legacy MSA.

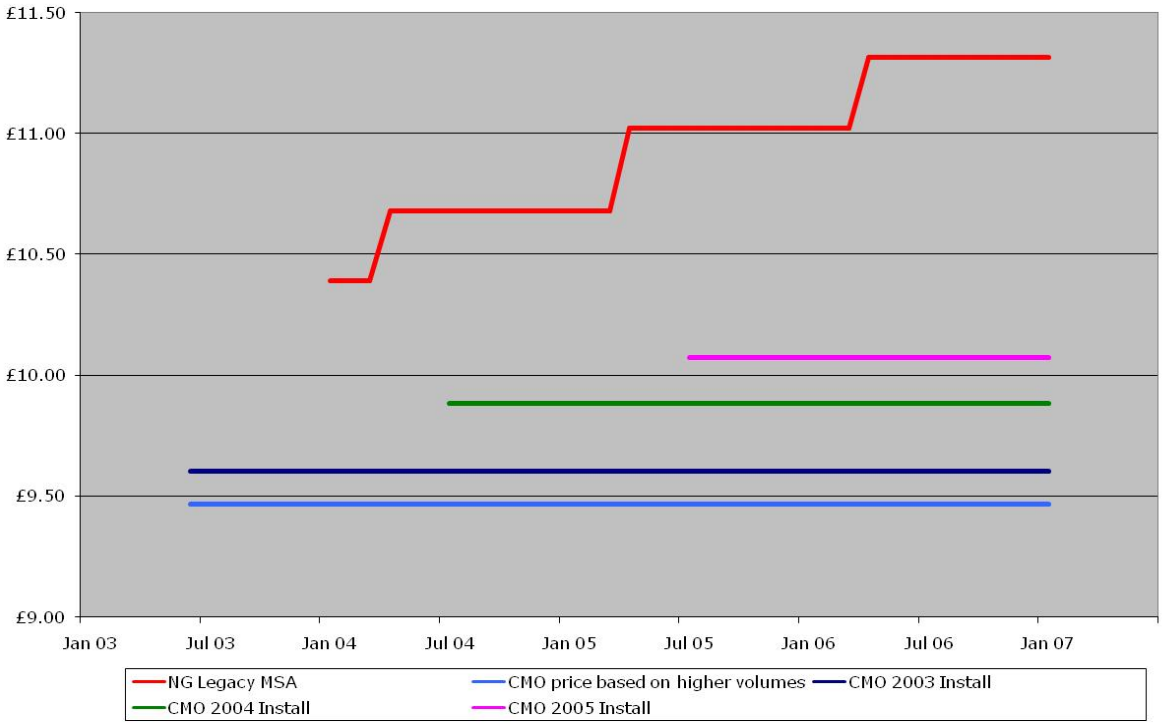
Metering charges

2.112. Figure 3 below shows the meter rental charges under the Legacy MSAs for each year of the contract so far compared to a weighted average of the charges in the CMO contracts. The rental charge for an installed meter under the Legacy MSA is increased each year by the rate of inflation (measured by the retail price index). Under the CMO contracts, a different rental charge applies each year for newly installed meters, but these rental charges are fixed in nominal terms once a meter is installed[143].

[142] See New/Replacement MSA, Schedule, Part 3, Section 1, clause 3.6. If a Meter has been itemised on the Replacement Schedule that does not in and of itself prevent a Meter incurring a PRC (see definition of "End of Useful Life", New/Replacement MSA, Schedule, Part 1); if more than 1/12th of the Replacement Number is replaced each month, a PRC will be incurred (New/Replacement MSA, Schedule, Appendix 7).

[143] *[Excised]*

Figure 3: Comparison of Legacy MSA Meter rental charges with a weighted average CMO charge[144]



2.113. Figure 3 shows that in 2003, NG's meter rental charges for DCMs were £0.79 higher than the average of those being offered by their own subsidiary UMS, or any of the CMOs, when compared to the CMO rental charge for meters being installed in 2003(CMO 2003 install price). This price differential continued to increase over the duration of the Legacy MSA because the legacy MSA rental charge is indexed to inflation and the CMO prices are not. By 2005/06 NG's rental charges were £1.70 higher than the 2003 CMO rental charge and £1.25 higher than the weighted average rental charge for CMO meters being installed in 2005[145].

2.114. The graph also shows the weighted averaged of the charges in the CMO contracts if higher volumes were awarded. This is calculated using the price that was in the original UMS contract before the contract was renegotiated and the rental charge increased as a result of volumes being reduced. This contract renegotiation

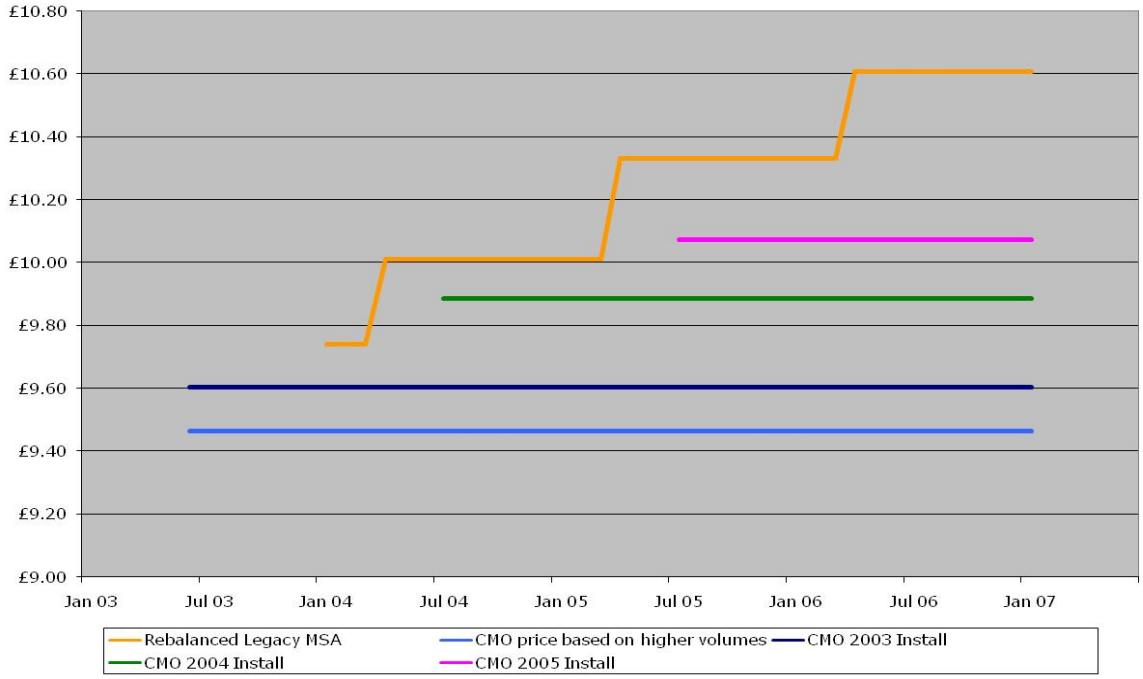
[144] UMS figures are from 2005/06 – see Document 11241. CML's rental charges are in Schedule 2 of their contract with BGT, Document 4711, page 32 and Meter Fit's rental charges from Appendix 1 of Schedule 2, Document 4686. These provisions have been redacted due to confidentiality reasons. NG's current charges are taken from their charging statement. The weighted average charge has been calculated from figures in Documents 11240, 11241 & 11242. All rental charges have been redacted due to confidentiality reasons. As the CMO contracts have different start dates we have used July as the start of the contract year. NG's figures for 2005/06 and 2006/07 are taken from their charging statements. The NG charges for 2003/04 and 2004/05 exclude business rates. The 2003/04 charge is that for category 1 Legacy credit meters taken from Legacy MSA, Schedule 7, Part 2, Section 1, paragraph 2.1. The 2004/05 figure was calculated by applying an inflation factor of 1.028055 (Document 11414) to the 2003/04 charge.

[145] NG's legacy MSA price decreased at the end of March 2005 due to change in business rates. The depiction of NG's Legacy MSA meter rental charges for DCMs does not show the change in the treatment of rates that occurred in the first 15 months. To clearly illustrate the argument that legacy MSA prices were higher than an average CMO price, while allowing for a clear illustration, the lower of the two prices in 2004/05 was chosen and indexed for the previous years.

demonstrates that there is a clear link between volumes and prices: higher meter replacement volumes lead to lower annual meter rental prices.

2.115. As noted above, NG has notified gas suppliers of its intention to restructure by consolidating NG's metering business and UMS into a single structure and to rebalance their DCM and PPM rental charges[146]. The planned rental charge for (category 1[147]) legacy DCMs for 2005/06 was £10.33 (compared with the charge of £11.02 shown in the graph above). Thus, the rebalanced DCM charge would still be significantly higher than the weighted average DCM charges under the CMO contracts. This differential would continue to increase significantly over time as the MSA rebalanced contract prices would also be indexed to inflation for the duration of the contract (unlike the CMO contracts). This is illustrated in figure 4 below.

Figure 4: Comparison of 'rebalanced' legacy MSA Meter rental charges with a weighted average CMO[148]



2.116. As with figure 3, two 2003 prices are used to demonstrate the initial contract price and the higher price that was paid to UMS after meter volumes under the contract were reduced.

[146] NG's letter to gas suppliers informing them of the new tariff following the merger of NG's metering business with UMS, 24 March 2005, see NG's response to a section 26 request for information, dated 12 January 2007, Document 11252, pages 13-14 and NG's 'Response to section 26 notice dated 12 January 2007, question 1- supplementary information', Document 11276, pages 3-7.

[147] Different rental charges apply to Category 1 and Category 2 meters. An upfront installation fee was levied on Category 2 meters, i.e. meters installed new since October 2000 . Category 1 meters are all other meters under the MSAs. NG written representations in response to the SSO, dated 6th July 2007, Document 11380 B, Appendix 2, page 7.

[148] The weighted average charges are the same as those in figure 3. The rebalanced NG Legacy MSA rental charge is that notified to gas suppliers informing them of the new tariff following the merger of NG's metering business with UMS, 24 March 2005, see NG's response to a section 26 request for information, dated 12 January 2007, Document 11252, pages 13- 14 and NG's response to a section 26 request, dated 12 January 2007, question 1- supplementary information, Document 11276, pages 3-7.

2.117. NG's annual rental charges for PPMs have been lower than those of UMS or competing CMOs on installation. For example, for 2005/06 the Legacy MSA charge for (category 1) PPMs was £29.73 , as compared with a charge of *[almost 30% higher]* for a PPM newly installed in 2005/06 under the UMS contract. However, following NG's proposed rebalancing of DCM and PPM charges, the legacy PPM rental charge would have increased to £48.24 which is *[over 25% higher]* than the equivalent UMS charge. This differential would also increase over time because of the indexation of NG's PPM charges over the remaining life of the legacy MSA contract.

Developments following the signing of the MSAs

2.118. Aside from BGT, none of the other suppliers have proceeded yet to contract with CMOs. All of the meters that have been installed by non-NG meter operators to date have been installed under the BGT contracts that were concluded before the signing of the MSAs.

2.119. BGT had entered into three contracts with commercial meter operators – Meter Fit (a United Utilities joint venture), CML ('CML') (a Siemens joint venture) and UMS (a NG company trading as Onstream) - for the provision of new and replacement meters in respect of certain geographical regions in Great Britain.

2.120. The development and signing of the Legacy MSA has had a direct effect on gas suppliers' willingness to rent meters from CMOs.

2.121. For example, in March 2003, BGT informed CML that there would be a reduction of around 15 per cent in the volumes for DCMs that it had tendered for[149]. The reduction was partly the result of BGT's negotiations with NG on the Legacy MSA (it was also due to other commercial factors). In an internal email in 2004 in respect of the actions already taken to address the reduction, BGT noted:

> 'The Siemens contract was at an earlier stage of negotiation when the Legacy contract was signed and the opportunity was taken to reduce Siemens volumes to approx x per cent of the tender numbers. It was considered that further volume reductions would have rendered their business case unviable and would have impacted our ability to fulfil obligations to remove older meters in their area.'[150]

2.122. In May 2006, BGT informed CML that it was further reducing volume by purchasing the lowest volume permitted under the contract, to 85 per cent of agreed volumes. BGT indicated that this reduction was intended to avoid the risk of exceeding the replacement levels provided for by the glidepath and incurring premature replacement charges. Although BGT is contractually entitled to reduce the volume by this amount, CML had expected 100 per cent of the contractual volumes[151].

[149] CML's response to a section 26 request for information, 14 February 2007, document 11325 appendix 4. Further Response by CML to Ofgem's request for information, dated 6 March 2007, Document 11343, page 1 shows that the overall reduction in volume was 13% for DCMs and PPMs.

[150] Internal BGT email, subject: [UMS] contract variation, dated 22 July 2004, Document 9825, page 2.

[151] CML's response to Ofgem's request for information, dated 15 January 2007, Document 11273, pages 3-4, question 6.

2.123. According to Meter Fit, BGT became nervous in May 2004 about the contract volumes for gas meters, which resulted in a reduction of the maximum replacement caps[152]. In Meter Fit's view, the introduction of these fixed volume caps, requiring Meter Fit not to replace more than a certain percentage of contract volumes, is attributable to BGT entering into the MSAs. Under the new Meter Fit contract, if the volume of meters installed in one year is within a very low range above the cap *[excised]*% of the Policy exchange work, the volume for subsequent years has to be reduced. If the volume of meters in one year is in excess of a low percentage above the cap *[excised]* that is considered a material breach of the Meter Fit contract[153].

2.124. In October 2004, BGT also considered ways of renegotiating the UMS contract to reduce the meter volumes. Although for the purposes of the Act and Article 82 EC, UMS and NGG are considered as a single 'undertaking' ('NG'), BGT's renegotiation of the UMS contract illustrates the extent to which the Legacy MSAs constrain the rate at which any party other than NG can replace Legacy meters. BGT considered the following options:

> 'Restrict Onstream volumes to *[50-70]* per cent of the contract volume and pay the compensation payments in accordance with the contract terms.
>
> Negotiate new rental prices to reduce rental prices with Onstream to reduce the volumes to *[50-70]* per cent of current levels across 5 years of the contract.
>
> The meter operators could purchase meters from NG to make good the shortfall of meters fitted. Preliminary discussions have been held with NG and each of the meter operators, and all parties were interested in progressing this option. NG however has now indicated that they are reviewing their policy in respect of asset disposal and consequently it is unlikely that this option can be progressed sufficiently quickly to address the immediate mismatch issues.'[154]

2.125. Since UMS was entitled to financial compensation if the volume of business was lower than expected, BGT had to consider carefully which option would be the least costly. The Authority understands that NG subsequently refused to consider the third option (the sale of meters). With regards to these options BGT went on to note that:

> 'Both options 1 and 2, offer lower cost solutions than utilising the Legacy contract tolerance provisions.'[155]

2.126. Despite attempts to reduce the volumes awarded to CMOs, BGT has exceeded its glidepath allowance and has been in the take or pay zone since February 2006[156]. BGT is considering whether they can reduce demand for customer driven meter replacement (i.e. functionality exchanges) without damaging customer relations. There are two reasons for BGT being in the take or pay zone:

[152] BGT entered into a contract with Meter Fit in May 2002, on which renegotiations began in October/November 2003 due to operational difficulties, including delays in setting up IT systems and an original shareholder of the Meter Fit joint venture withdrawing. The renegotiations were concluded in June 2004.

[153] 'Note of a meeting with Meter Fit/United Utilities regarding investigation into the National Grid legacy and New/Replacement MSAs', 6 March 2006, Document 10766, page 2, paragraphs 5 and 6.

[154] Internal BGT email, subject [UMS] contract variation, dated 22 July 2004, Document 9825, page 3.

[155] ibid

[156] BGT meeting with Ofgem on 14 August 2007, Document 11404.

- as BGT's glidepath allowance has decreased in line with its reduction in market share, the glidepath now permits fewer meter replacements than the volumes BGT has contracted for replacement by the CMO contracts; and
- as BGT failed to replace a sufficient number of policy meters in the first two years of the contract, NG replaced *[70,000-120,000]* of BGT's meters[157], which in turn, led to BGT exceeding the glide path.

2.127. As noted above, there have been some developments since the investigation started. NG has amended the MSAs including provisions relating to partial termination arrangements to remove any ambiguity over which charges apply to early meter replacement.

2.128. Suppliers, including RWE, Powergen, SSE and SP had issued call for tenders but have put the tendering processes on hold pending the outcome of the present investigation.

[157] These meters are now provided to BGT under the N/R MSA, despite the fact that BGT had 'elected' out of the N/R contract.

3. MARKET DEFINITION AND DOMINANCE

3.1. The Authority finds that NG holds a dominant position in the market for the provision of installed domestic-sized gas meters and the ancillary service of meter maintenance[158] in Great Britain.

3.2. In this Chapter, the Authority:

(a) sets out the legal considerations taken into account in defining the relevant market;

(b) sets out its assessment of the relevant product market having considered both demand and supply side substitutability;

(c) sets out its assessment of the relevant geographic market; and

(d) assesses whether NG is dominant in the relevant market and concludes that NG is dominant.

Market definition – Legal Test

3.3. For the purposes of the Chapter II prohibition and Article 82 EC, dominance is assessed within a relevant economic market, defined in both product and geographic terms.

3.4. The definition of the relevant product market is primarily a question of the degree of substitutability among goods or services. In its judgment in *Genzyme* the Competition Appeal Tribunal ('CAT') stated:

> 'In simple terms, an undertaking's market power will depend on whether the customers or users of the product have any alternatives available to them. It is thus the market in which substitutes are, or are not available that is the relevant market for the purposes of addressing dominance'.[159]

3.5. Similarly, the European Commission's ('the Commission') notice on market definition ('the Market Definition Notice') states that:

> 'a relevant product market comprises all those products and/or services which are regarded as interchangeable or substitutable by the customer, by reason of the products' characteristics, their prices and their intended use'.[160]

3.6. The Market Definition Notice summarises the framework within which markets are defined for the purposes of competition law:

> 'Firms are subject to three main sources of competitive constraints: demand substitutability, supply substitutability and potential competition. From an economic point of view, for the definition of the market, demand substitutability constitutes the most immediate and effective disciplinary

[158] There are a number of ancillary services associated with installed domestic-sized gas meters. The most important of these is meter maintenance. Other ancillary services include commissioning, repositioning and inspecting the meter.

[159] *Genzyme v OFT* [2004] CAT 4, paragraph 216.

[160] Commission Notice on the definition of the relevant market for the purposes of Community competition law (OJ C372, 9.12.1997, paragraph 7). This definition reflects the case law of the ECJ.

> force on the suppliers of a given product, in particular in relation to their pricing decisions. (...)
>
> The competitive constraints arising from supply side substitutability (...) are in general less immediate and in any case require an analysis of additional factors. As a result such constraints are taken into account at the assessment stage of competition analysis.'[161]

3.7. The CAT in *Aberdeen Journals* gave a summary of the considerations which may apply in defining the relevant product market:

> '...the relevant product market is to be defined by reference to the facts in any given case taking into account the whole economic context, which may include notably (i) the objective characteristics of the products; (ii) the degree of substitutability or interchangeability between the products, having regard to their relative prices and intended use; (iii) the competitive conditions; (iv) the structure of supply and demand; and (v) the attitudes of customers and users.'[162]

3.8. The CAT goes on to say:

> 'However, this check list is neither fixed, nor exhaustive, nor is every element mentioned in the case law necessarily mandatory in every case. Each case will depend on its own facts, and it is necessary to examine the particular circumstances in order to answer what, at the end of the day, are relatively straightforward questions: do the products concerned sufficiently compete with each other to be sensibly regarded as being in the same market? Are there other products which should be regarded as competing in the same market? The key idea is that of a competitive constraint: do the other products alleged to form part of the same market act as a competitive constraint on the conduct of the allegedly dominant firm?'[163]

Overview of NG's views on market definition

3.9. NG has contested the Authority's views on market definition set out in the SO and SSO. NG says that the Authority should draw a distinction between Legacy and N/R meters.

3.10. NG argues that the Authority has (i) failed to analyse properly the conditions of competition and demand side considerations in relation to Legacy meters and N/R meters; (ii) failed to look at the supply side substitution for N/R meters; and (iii) failed to consider the regional dimension to competition in N/R meters.

3.11. The Authority is not persuaded by NG's arguments on market definition and sets out its reasoning below.

[161] Market Definition Notice, paragraphs 13 and 14.

[162] *Aberdeen Journals Limited v DGFT* [2002] CAT 4, paragraph 96.

[163] Ibid, paragraph 97. The OFT in its market definition guidelines also recognises that the process of defining the relevant market is case specific: "The OFT will not follow mechanically every step described below in every case. Instead, the OFT will look at evidence that is reasonably attainable and relevant to the case in question", OFT 403, Market Definition, paragraph 1.2.

Demand side substitution

3.12. To determine the relevant market (or markets), the Authority has considered how actual or potential competitors constrain NG's competitive conduct.[164]

Legacy and N/R Replacement meters

3.13. The Authority's view is that the characteristics and intended use of Legacy and N/R meters do not differ. Legacy meters are meters which have been installed before a certain date; N/R are those installed after a certain date (specifically in each case by NG – these are defined terms under the MSAs). In the case of PPMs many N/R meters are simply refurbished old or Legacy meters.[165] Further, NG does not make a distinction between Legacy and N/R meters in its P&M contract and neither do the CMOs in their contracts with gas suppliers. This distinction has no specific meaning or use other than in the MSA contracts and it first arose when NG created two separate MSA contracts, one for Legacy meters and another for N/R meters.

3.14. NG has referred to the conditions of competition being different for Legacy meters and N/R meters, on the basis that Legacy meters had already been installed whereas N/R meters were not installed when the MSAs were signed. Nevertheless, it is clear that, by their very nature, N/R meters are very good demand side substitutes for Legacy meters from a gas customer or supplier perspective and that they provide a competitive constraint on Legacy meters. Legacy meters have been (and continue to be) taken off the wall by NG and substituted by meters which are then governed by the N/R MSAs. The fact that a replacement meter is a direct substitute for a Legacy meter is implicit in NG's own assertion that they faced a significant risk of stranding.

3.15. For these reasons, the Authority concludes that Legacy and N/R meters belong to the same product market.

DCMs and PPMs

3.16. In terms of their intended use, DCMs and PPMs are effective substitutes for each other because they both measure gas consumption in domestic homes.

3.17. They differ only insofar as PPMs make gas supply conditional upon pre-payment whilst DCMs do not. PPMs are an attractive alternative for DCMs for some customers, for example, those considered a credit risk by their supplier and those customers who themselves prefer them for budgeting reasons, even though they are more expensive[166]. Suppliers install PPMs to help customers manage debt or budget. Alternatively, suppliers switch PPMs to DCMs if a customer's circumstances change or a customer with a satisfactory payment or credit history moves into premises with a PPM installed.

[164] See OFT 403, Market Definition, for further details of the Authority's approach to market definition.

[165] NG made this clear in its response to section 26 Notice dated 12 January 2007, Document 11269, pages 9-13, response to questions 7 and 8.

[166] PPM customers pay on average £40-£53 (depending on which gas supplier the customer uses) a year more than DCM customers who pay by direct debit (which is the cheapest payment method). See Ofgem Report, Domestic Retail Market Report - September 2005, published 6 February 2006, 23/06, Document 10873, page 9, table 4.2, available at http://www.ofgem.gov.uk/Markets/RetMkts/Compet/Documents1/12875-2306.pdf

3.18. Suppliers reflect this need in the way they contract. To date, gas suppliers have always tendered for the provision of these two types of meters together. In the CMO contracts, for example, BGT benefits from reduced charges if the CMO makes a functionality change (i.e. switches from DCM to PPM) compared to the premature replacement charges it would have to pay if it took meters of a different functionality from another provider. Likewise, the MSAs cover both type of meter.

3.19. For these reasons, the Authority concludes that the provision of DCMs and PPMs forms a single product market.

Substitution by other gas meter sizes

3.20. The Authority has considered whether there are any further potential demand side substitutes for the provision of installed domestic sized gas meters. There are different sizes of gas meters that are available to measure different levels of consumption. Gas meters in Great Britain[167] are classified according to the maximum volume of gas that can flow through the meter while that meter operates within close bands of accuracy (known as its 'badged' capacity). The smallest size of meter, and most basic type, of meter allows a maximum volume of six cubic metres per hour ('u6 meters') to flow through it. These meters are generally installed in the premises of domestic customers and small businesses; no distinction is made as regards their size between Legacy and N/R meters and the MSAs only apply to u6 meters.

3.21. As shown in the table 2 below these u6 meters account for around 98 per cent of gas meters in Great Britain.

Table 2: Number of installed meters in Great Britain by size in January 2007

Meter capacity	Number of DCMs[168]	Number of PPMs[169]	Total meters by size	Percentage of total meters
u6 meters	19,447,860	2,306,260	21,754,120	98
u16 meters	215,329	n/a	215,329	1
Meters with capacity greater than u16	237,319	n/a	237,319	1
Total	19,900,508	2,306,260	22,206,768	100

Source: Responses to Ofgem information requests

3.22. The MSAs relate to gas meters with a capacity less than 11 cubic metres per hour. In Great Britain the only available meters with a maximum capacity below 11 cubic metres per hour are u6 meters.

[167] Gas meters in Europe are measured according to the expected volume of gas to flow through the meter, which is approximately 80 per cent of the maximum flow that the meter can measure.

[168] Ofgem aggregate from Section 26 responses.

[169] There are no PPMs able to measure maximum flows greater than 6 cubic metres per hour (u6 meters).

3.23. The ability of gas meters designed to measure higher gas consumption than u6 meters to act as a substitute for domestic-sized gas meters is constrained by a number of factors which mean that it is not economically viable to substitute u6 meters for gas meters designed to measure higher gas consumption than u6 meters:

(a) u16 meters are not able to measure a small volume of gas accurately: a u16 meter is not designed to measure accurately outside the range of 16 cubic meters per hour to 0.32 cubic meters per hour, whereas a u6 meter measure accurately between the range of 6 cubic meters per hour to 0.12 cubic meters per hour; and

(b) The significant difference in their price and installation cost shown in Table 3 below.

Table 3: Price of meter and installation kit by type in December 2000 (January 2006 prices)[170]

	Purchase price of meter	**Cost of installation kit**
U6 meter	£26	£9
U16 meter	£130	£54
Meters with capacity greater than u16	£331 – 16,950	£83 – 44,500

Source: NG, December 2000

Substitution by electricity and water meters

3.24. Although there are other utilities that use meters to measure the supply of electricity and water, these are not substitutes for gas meters. Only gas meters are specifically designed to measure the consumption of gas. There is a legal requirement[171] for end customers in Great Britain to have a meter which is of a type appropriate for registering the quantity of gas supplied. Therefore, it is neither technically nor legally possible to substitute gas meters with electricity or water meters.

Installation and provision

3.25. Although it would be possible for gas suppliers to purchase meters from manufacturers and source installation separately, in practice suppliers have contracted for these services as part of meter provision. None of the gas suppliers currently own domestic-sized gas meters (other than for the purpose of trials). Instead they rent installed gas meters from intermediaries, known as meter operators[172]. This was illustrated in Centrica's submission to Ofgem dated 24 November 2005:

[170] These figures were provided by NG to Ofgem in December 2000 during the setting of its metering price control.

[171] Schedule 2B of the Gas Act 1986 (as amended), paragraph 2.

[172] The main meter operators are NG, CML, Meter Fit and Utility Metering Services (a subsidiary of NG).

'... it is not attractive to Centrica to incur up-front costs for installing a meter, when there is a risk of losing the customer shortly thereafter'.[173]

3.26. On the basis of current market practices, the Authority concludes that meter provision is to be defined as the provision of an installed meter[174], together with the ancillary service of meter maintenance explained below.

Meter maintenance

3.27. The provision of domestic-sized gas meters in Great Britain typically includes the provision of ancillary services, the most important of which is maintenance.

3.28. There is a significant overlap in practice between 'meter maintenance' and the provision of DCMs. In particular, maintenance visits to DCMs often lead to the meter being replaced[175]. The term 'meter maintenance' covers both situations – pure maintenance where a technician makes repairs to a meter (such as a battery change for a PPM) and meter replacement where a technician decides it is more cost effective simply to replace the meter on a maintenance visit.

3.29. Some suppliers in response to section 26 information requests noted that they would not normally consider contracting for ancillary services (including that of maintenance) separately from domestic gas meter provision[176] and the majority of those that would consider this indicated that their decision would be based on whether there was a cost benefit in separating the two.[177] The Authority has not found sufficient evidence that it would be cost effective for suppliers to appoint separate companies to maintain existing meters and to install meters.

3.30. However, competition has only recently been introduced in the domestic gas metering market and a separate market for meter maintenance could emerge in future. PPM maintenance is relatively high value and also involves substantial workflow for trained meter technicians. The value of PPM maintenance is much higher than DCM maintenance because of PPMs' much higher maintenance costs. Based on NG's PPM maintenance charges of £17.91 per annum[178] and a PPM meter population of 1.75m meters[179], the annual revenues associated with PPM meter maintenance are approximately £31.3m. This represents approximately 12 per cent of the total revenues associated with the provision and maintenance of PPMs and DCMs each year. PPM maintenance might become an attractive stand alone service or an additional service to offering maintenance and installation of N/R

[173] Response provided by Centrica to an Ofgem information request, dated 24 November 2005, Document 6346, page 1.

[174] Response provided by Exoteric Gas Solutions to an Ofgem information request, received on 10 November 2005, Document 6339, page 5.

[175] Note of meeting with Siemens regarding the investigation into NG's legacy and new/replacement MSAs, 17 February 2006, Document 10667, page 2, paragraph 10.

[176] See for example EDFE's response dated 24 November 2005 to an Ofgem information request, Document 6890, page 1, response to question 2 and RWE npower's response dated 24 November 2005 to an Ofgem information request, Document 6344, page 3, response to question 2.

[177] See for example Scottish Power's response dated 24 November 2005 to an Ofgem information request, Document 6343, page 3, response to question 2.

[178] NG Charging Statement April 2007, Document 11244F.

http://www.nationalgrid.com/uk/Metering/Publications/Metering+Charges

[179] NG's response to a section 26 request for information dated 19 January 2007, Document 11272.

meters for CMOs or others because it would provide significant volumes of work for the meter workforce and could help them to achieve economies scale and density in their operations whilst their market share in meter provision grows.

3.31. But the Authority does not have sufficient evidence to suggest that CMOs or others are willing to provide maintenance as a separate service or that there is demand from suppliers for maintenance services separate from meter provision at the moment. The Authority therefore considers that there is insufficient evidence to conclude that meter maintenance is a distinct market from the provision and installation of domestic-sized gas meters. The fact that meter maintenance often involves meter replacement is relevant, however, as part of the analysis of the effects of the provisions in the MSAs.

3.32. The analysis of demand side substitution points to a relevant product market that is defined as one for the provision of installed domestic-sized gas meters, including the ancillary service of meter maintenance.

Supply side substitution

3.33. Supply side substitutability requires suppliers of other products to be able to switch production to the relevant products and market them in the short term (e.g. less than one year). It also requires suppliers to be able to do this on a significant scale without incurring significant additional costs or risks in response to small and permanent changes in relative prices.[180] Both conditions are necessary to impose an effective competitive constraint and a wider market definition than demand side substitutability alone would suggest.

3.34. In relation to market definition, the test is broadly whether or not the effects of such substitution are equivalent to those of demand side substitution in terms of effectiveness and immediacy.

3.35. The Authority considers that suppliers of other products would be unable to switch their supply activities quickly enough or on a large enough scale to impose a competitive constraint on NG.

3.36. Whilst the CMOs have entered the market relatively quickly they have not established sufficient scale to act as an effective competitive constraint on NG given NG's very high market share and installed meter base. NG's view, that the appropriate benchmark for judging the scale of entry by Meter Fit and CML is their share of the N/R meter activity, is in the Authority's view incorrect. The Authority does not distinguish between Legacy and N/R meters in defining the relevant market for the reasons already set out.

[180] Market Definition Notice, paragraph 20. See also OFT 403, Market Definition, Chapter 6. The Commission Guidelines on the applicability of Article 81 to horizontal cooperation agreements (OJ C 3, 06.01.2001 p2) (footnote 9) state: "Market entry needs to take place sufficiently fast so that the threat of potential entry is a constraint on the market participants' behaviour. Normally, this means that entry has to occur within a short period. The Guidelines on Vertical Restraints (OJ C 291, 13.10.2000, p. 1, paragraph 26, consider a period of maximum 1 year for the purposes of application of the Block Exemption Regulation on Vertical Restraints (see footnote 11). However, in individual cases longer time periods can be taken into account. The time period needed by companies already active on the market to adjust their capacities can be used as a yardstick to determine this period".

3.37. Meter Fit and CML have demonstrated that they were able to enter the market relatively quickly but only managed to secure a market share of around 1 per cent for DCMs in their first year of operation.[181] This is because the market has features that would limit the scale at which any new entrant could expand its business in one year even in the absence of the foreclosing features of the MSAs, These features are the practical logistics of purchasing and then installing large numbers of meters at domestic customers' premises that would be necessary to achieve significant scale in under a year.

3.38. As the former monopoly provider, in a market in which the conditions for effective competition only emerged in 2002, NG has a large installed base of gas meters which means that the size of the contestable market in any given year is relatively small.[182] Replacing a gas meter is not as quick, simple or cheap as replacing one company's goods on a retailer's shelf with the goods of a competing company. It is not a straightforward operation to replace a gas meter since the meter operator must gain access to the customer's property even if the meter is kept outdoors (because of the need to reignite the boiler once the gas supply is restored). BGT has suggested that there is a shortage of skilled labour[183]. Meter Fit also states that CMOs were necessarily initially constrained in the volume of meters they could change out with their existing workforces. They could not increase volumes by more than 20-25 per cent without additional training and staff.[184] Metering installers are required to be CORGI approved[185]. CORGI training for domestic sized gas meters takes up to 12 weeks to complete (including on the job training).[186]

3.39. In conclusion, the Authority finds that potential supply side substitution is unlikely in the short term to be an effective constraint on NG. On the basis of the analysis of demand side substitutability, the relevant product market is defined as the provision of installed domestic-sized gas meters, including the ancillary service of meter maintenance.

Relevant geographic market

3.40. The Market Definition Notice summarises the framework for defining geographical markets as follows:

> '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 conditions of competition are sufficiently homogenous and which can be distinguished from neighbouring areas

[181] See Table 8 in paragraph 4.97.

[182] In January 2007 there were 17,038,198 Legacy meters but only 4,715,922 N/R meters (Source: responses to Ofgem information requests).

[183] BGT's response dated 4th August 2006 to the Statement of Objections, Document 10999, pages 6-7. See also CML's response to the Statement of Objections dated 4th August 2006, Document 11228, page 6, paragraph 7.3(a), where CML notes that "the skill set required for the installation of gas meters is at the lower end of the gas engineer range" and "school leavers" can be trained within 12-15 weeks to be fully operational.

[184] Meter Fit's response dated 4th August 2006 to the Statement of Objections, Document 11004, page 2, paragraph 7.4(i).

[185] Corgi Document 'ACS guidance note 8 (update) for certification bodies', 1 December 2003, Document 10887, page 6. In accordance with the Code of Practice for Gas Meter Asset Managers, version 1.0, September 2005, Document 10887.

[186] Corgi Document 'ACS guidance note 8 (update) for certification bodies' 1 December 2003, Document 10887, page 6.

> because the conditions of competition are appreciably different in those areas.
>
> The relevant market within which to assess a given competition issue is therefore established by the combination of the product and geographic markets'.[187]

3.41. NG has argued that geographical considerations point to N/R meters being in a separate market from Legacy meters and reiterates its argument that the Authority has failed to consider the competitive constraints in the N/R meter market separately from those in the Legacy meter market. For the reasons already set out, the Authority does not distinguish between Legacy and N/R meters in defining the relevant market.

3.42. The conditions of supply and demand for domestic-sized gas meter provision and maintenance are the same throughout Great Britain.

3.43. As mentioned previously, the Gas Act 1986 (as amended) requires that every gas customer in Great Britain takes his/her supply of gas through a meter which is of a type appropriate for registering the quantity of gas supplied. This requirement means that there must be a gas meter in each end customer's premises. Domestic-sized gas meters are located in or outside the premises. It is not possible to measure gas consumption without an installed meter.

3.44. From the gas supplier's perspective, the geographical market it serves is defined by the geographical region to which it supplies end customers. All gas suppliers in Great Britain operate throughout Great Britain and their requirements for meter services are therefore similarly wide.

3.45. All but one of the six major gas suppliers in Great Britain has signed the MSAs. As a result, the MSAs apply to gas meters in all parts of Great Britain.

3.46. The calls for tenders put out by suppliers for meter provision services have invited national bids[188]. Powergen, for example, tendered for a contract for metering services to be provided on "either a regional or national" basis[189] and RWE npower tendered for the provision of meter assets on a national basis.[190]

3.47. BGT chose to tender for metering services by dividing Great Britain into seven geographical regions. The tender requirements were the same for each area and tenderers were invited to submit bids for the provision of services in one or more of those areas. This does not suggest a regional market definition. There were a number of reasons why BGT chose to divide the country in this way, not least because it saw the competitive benefits of appointing more than one CMO to provide it with services.[191] While it was convenient to use regions for the purposes

[187] Market Definition Notice, paragraphs 8 and 9.

[188] The most recent tenders have, the Authority understands, been put on hold pending the outcome of this investigation. CML is of the view that, "[t]he MSAs have led to the stalling of existing tenders by preventing suppliers from offering realistic contracts that would generate competitive prices", see CML response to the Statement of Objections, Document 11228, page 7-8, paragraphs 10.1-10.4.

[189] See Powergen Periodic Indicative Notice (PIN), Document 6227, page 2.

[190] RWE npower's response to an Ofgem information request, Document 4735, page 6, response to question 7.

[191] BGT's response dated 24 November 2005 to an Ofgem information request, Document 6346, pages 10-14, response to question 7.

of CMO tendering, BGT continued to contract with NG on a national basis in the MSAs.

3.48. There is also evidence that suppliers consider the relevant market to be national. EDFE, for example, has stated that:

> 'There is no intrinsic reason why gas metering services should be offered on a regional rather than a national basis. A number of service providers offer national gas metering services, and all service providers have the option to provide metering services either nationally or regionally.'[192]

3.49. SSE has stated that:

> '… the gas [metering] market is mainly national in focus, reflecting Transco's dominant position in that market….'[193]

3.50. There is no evidence that the geographic market is wider than Great Britain. The installation of a meter requires a physical presence. Furthermore, metering in most other countries is not liberalised or competitive and is undertaken as a monopoly activity by the relevant network businesses; the same is true of Northern Ireland.

3.51. The Authority therefore concludes that the relevant market is the market for the provision of installed domestic-sized gas meters including the ancillary service of meter maintenance in Great Britain.

Assessment of dominance

3.52. For the reasons set above, the Authority has concluded that the relevant market is the market for the provision of installed domestic-sized gas meters including the ancillary service of meter maintenance in Great Britain.

3.53. NG is dominant in that market.

The legal test

3.54. The CAT has in previous decisions relied on the definition of a dominant position laid down by the European Court[194] as:

> 'a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of customers'.[195]

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[192] Response provided by EDFE to an Ofgem information request, Document 6890, page 2, response to question 5.

[193] Scottish and Southern Energy's response dated 24 November 2005 to an Ofgem information request, Document 6342, page 3, response to question 5.

[194] 'The European Court' means the Court of Justice of the European Communities and includes the Court of First Instance (see Section 59(1) of the Act). In the application of the Chapter II prohibition the Authority is required under Section 60 of the Act to ensure that there is no inconsistency with either the principles laid down by the EC Treaty and the European Court or any relevant decision of the European Court. The Authority must also have regard to any relevant decision or statement of the Commission.

[195] *Genzyme v OFT* [2004] CAT 4, paragraph 188; *Aberdeen Journals Limited v DGFT* [2002] CAT 4, paragraph 86. For the European Court's case law, see Case 27/76 *United Brands v Commission* [1978] ECR 207; [1978] 1 CMLR 429; Case 85/76 *Hoffman La Roche v Commission* [1979] ECR 461; Case T-228/97 *Irish Sugar v Commission* [1999] ECR II 2969.

3.55. The European Court has also stated that:

> 'such a position does not preclude some competition … but enables the undertaking which profits by it, if not to determine, at least to have an appreciable influence on the conditions under which that competition will develop, and in any case to act largely in disregard of it so long as such conduct does not act to its detriment'.[196]

3.56. The existence of a dominant position may derive from several factors which taken separately are not necessarily determinative, but among these factors a highly important one is the existence of a very large market share[197]. Although the importance of market share may vary from one market to another, a very large market share is, except in exceptional circumstances, evidence of the existence of a dominant position.[198] In *AKZO* the European Court stated that a market share in excess of 50 per cent gives rise to a presumption of dominance.[199]

3.57. However, market share is not the only indicator of dominance and in assessing whether NG is dominant; the Authority has considered whether, and to what extent, NG faces constraints on its ability to behave independently of its competitors. Those constraints could potentially include:

- **Existing competitors:** according to their strength, their ability to expand their activities quickly and the extent to which they act as a constraint. This may be indicated by their market shares;
- **Potential competitors:** the extent of any such constraint will depend upon the potential size of any entry and expansion barriers and the existence of other undertakings which might easily enter the market and quickly establish scale; and
- **Other constraints:** such as significant buyer power exercised by the undertaking's customers.[200]

3.58. These issues are considered below in the context of the arguments that NG has put forward to support its views that it is not dominant.

Overview of NG's arguments on dominance

3.59. NG states that the Authority is wrong to conclude that NG is dominant. In particular, NG's view is that (i) a proper analysis of barriers to entry indicates that NG is not dominant with respect to N/R meters; (ii) NG was not in a strong negotiating position because of the asset stranding risk it faced; (iii) BGT's threat of replacing all NG's meters was real and of grave concern to NG; (iv) the Authority gives insufficient weight to the power of suppliers other than BGT in negotiating the MSAs; (v) NG had a licence obligation not to discriminate; and (vi) the Authority has overplayed the threat of withdrawal from the UMS deal.

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[196] *Hoffman La Roche v Commission*, ibid, paragraph 39.

[197] Ibid.

[198] Ibid, paragraph 41.

[199] Case 62/86 *Akzo Chemie BV v Commission* [1991] ECR I-3359, paragraphs 58-62.

[200] See OFT Guideline 402, Abuse of a Dominant Position, paragraphs 4.10-4.22.

Market shares of NG and existing competitors

3.60. As noted above in paragraph 3.56, a market share in excess of 50 per cent gives rise to a presumption of dominance. NG's market share gives rise to a presumption of dominance and this is supported by other evidence: the existence of significant barriers to entry and expansion, the lack of supply side substitutability and the absence of significant buyer power.

3.61. As explained previously, up until 2001, NG had a de facto monopoly in the provision of domestic-sized gas meters on its network.[201] Independent gas transporters[202] provided domestic-sized gas meters on their own networks, which accounted for a very small proportion of the total gas meter population. Independent gas transporters currently transport gas to three per cent of all gas customers on their own networks and only provide meters on their own networks. They typically transport gas at a very local level (for example to newly built housing estates) in low pressure pipes whereas NG provides the main higher pressure pipes at a regional and national level (whilst also transporting in low pressure pipes). While the number of connections provided by independent gas transporters is increasing as the market expands, they do not have sufficient market power to constrain NG.

3.62. Prior to BGT signing the MSA contracts in January 2004 new entry had occurred in the form of an award by BGT of three contracts to provide gas and electricity metering services to CML, Meter Fit and UMS. Out of the seven BGT areas, UMS (a subsidiary of NG) won four areas, Meter Fit won two areas and CML won one area. Meter Fit and CML, who were new gas meter operators, did not act as a significant constraint on NG. They were restricted in their growth due to the large installed base of NG meters.

3.63. The following table illustrates the market shares of NG, independent gas transporters and new entrants before, at the time and since signing the MSA contracts in January 2004. It demonstrates that NG's market share started and remained very high over a five year period, which is compelling evidence of the existence of a dominant position in the relevant market.[203]

[201] EGS has pointed out that EGS was active in the NG network in the domestic sector immediately prior to 2002 (first installation 26 June 2001).

[202] Independent Gas Transporters own low pressure transportation networks throughout Great Britain.

[203] See for example, *Hoffman La Roche v Commission*, paragraph 56.

Table 4: Table to show market shares for the provision of installed domestic-sized gas meters in Great Britain (per cent)[204]

	January 2002	January 2004	January 2006	January 2007
NG[205]	98	97	91	89
Independent Gas Transporters	2	2	3	4
New entrants	0	1	5	7

3.64. After signing the MSAs, the following gas suppliers issued invitations to tender for the provision of domestic sized gas meters: Powergen, SSE, RWE npower and Scottish Power. None of these companies has yet awarded any contracts.[206] However, as explained in Chapter 2 some suppliers have entered into 'churn contracts'[207] with a small number of meter operators for the provision maintenance and other ancillary services to non-NG meters that they may inherit as a result of customers switching suppliers.

3.65. The Authority has already considered and rejected the possibility that DCMs and PPMs are in separate product markets. But even if this market definition were used, NG would still have very high market shares, as shown in Table 5 below.

[204] Where the combined market shares do not equal 100, this is due to rounding.

[205] NG's market share includes meters provided by both NG and UMS. NG and UMS are a single economic unit for the purposes of competition law.

[206] CML is of the view that "The MSAs have led to the stalling of existing tenders by preventing suppliers from offering realistic contracts that would generate competitive prices" – see CML's response to the Statement of Objections, Document 11228, pages 7-8, paragraphs 10.1-10.4.

[207] These are contracts that suppliers enter into to provide metering services to customers with non NG meters, which they inherit as a result of a customer switching away from BGT (or other suppliers if they had contracted with CMOs).

Table 5: Market shares for the provision of installed domestic-sized PPMs and DCMs gas meters in Great Britain (per cent)[208]

	January 2004	January 2006	January 2007
NG[209] - DCMs	97	92	89
NG – PPMs	98	89	84
Independent Gas Transporters – DCMs	2	4	5
Independent Gas Transporters – PPMs	0	0	0
CMOs – DCMs	1	4	6
CMOs – PPMs	2	11	16

Barriers to entry and expansion

3.66. Barriers to entry and expansion arise when an incumbent undertaking has, by virtue of incumbency, a competitive advantage over potential or new entrants. These barriers may make entry less likely or the growth of competitors less rapid by affecting the level of sunk costs they must incur and/or their expected profits once they are in the market, or by establishing physical, geographic or legal obstacles[210]. The lower the barriers, the more likely it is that potential competition or recent entrants will prevent undertakings already within a market from profitably sustaining prices above competitive levels.

3.67. The OFT guidelines establish that 'entry barriers include not only those factors that prevent new entry entirely but also those that impede (without necessarily preventing) new entry'.[211] They also note that new entry is not simply about introducing a new product to the market. To be an effective competitive constraint, a new entrant must be able to attain a large enough scale to have a competitive impact on undertakings already in the market.[212]

3.68. The domestic-sized gas meter market has characteristics which make entry and expansion on a significant scale very difficult in a short space of time, even in the absence of the foreclosing features of the MSAs. These include NG's installed base and position in the market, the expected length of the asset life, the practical logistics of purchasing and then installing large numbers of meters at domestic customers' premises quickly as well as the need for potential rivals to achieve economies of scale[213] and density[214] to be able to compete effectively. It is clear

[208] Where the combined market shares do not equal 100, this is due to rounding.

[209] NG's market share includes meters provided by both NG and UMS.

[210] See OFT guideline 415, Assessment of Market Power, paragraphs 5.1-5.37.

[211] OFT guideline 415, Assessment of Market Power, paragraph 5.5 (footnote 23).

[212] Ibid, page 22.

[213] The Commission has taken the view that the economies of scale of a dominant company can deter potential

that new entrants have not established sufficient scale in a short space of time to act as an effective constraint on NG given NG's very high market share (partly because of difficulties explained in paragraph 3.38 above).

3.69. NG may have lost market share more quickly had it been willing to sell some of its asset base. However, NG ruled out this strategy and there is no evidence to suggest that NG has changed its strategy on this issue.[215] The market for domestic-sized gas meters has grown slowly, at 1 per cent per year.[216] Therefore, the only way for new entrants to be able to expand reasonably quickly and thereby impose competitive constraints on NG is by gaining sufficient business to replace NG meters.

3.70. However, NG's installed base will reduce the opportunities for CMOs to achieve economies of scale. Third parties consider it important to be able to gain economies of scale.[217] For example, the closer together a meter operator's gas meters are located, the lower the cost of a call-out. This is because the marginal cost of installing a single meter in any given area is significantly higher than the marginal cost of installing many meters in the same area. During a meeting with Ofgem, Siemens explained that:

> 'a bespoke visit to a meter costs *£[45-55]*. The marginal cost of visiting another meter in the same area is low (much less than *£[45-55]*) so it is important to be able to do replacements over a densely populated area'.[218]

3.71. CML has also stressed that the volume reductions it has experienced owing to the MSAs have resulted in reduced meter work densities, which have had a negative impact on the operational effectiveness of its meter work service provider Siemens Energy Services.[219]

3.72. ECO European, in response to an Ofgem section 26 information request, emphasised the importance of obtaining a minimum scale:

> '...the ability of ECO to attract reliable quantities of meter operatives at a competitive price is greatly affected by ECO's size within the market. [Sub-contractors] are more likely to provide a reliable service at a more competitive rate where the work volumes are such that they can be guaranteed a continuous stream of work rather than piecemeal jobs. Where these work volumes can be forecast or relied upon, there is also an incentive

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competitors: *BPB Industries plc* [1989] OJ L10/50, paragraphs 45 and 116. See also, C-310/93-P, *BPB Industries plc v Commission* [1995] ECR I-865.

[214] See responses to Ofgem's information request under Section 26 of the Act, dated 24 August 2005 by: (1) RWE npower, received 29/09/05, Document 5996 (2) Siemens Energy Services Ltd, received 29/9/05, Document 5997 (3) Scottish and Southern Energy, received 29/9/05, Document 5999 (4) Western Power Distribution (Southwest) and (South Wales) plc, received 29/9/05, Document 6000 (5) Eco asset management, received 5 October 2005, Document 6004 (6) United Utilities plc, received 6 October 2005, Document 6007 and (7) Exoteric Gas Solutions, received 10 November 2005, Document 6339.

[215] NG internal email, 'Re: Metering meeting with Ofgem' 9 September 2004, Document 3700, page 2 (vi).

[216] According to Ofgem's figures for new connections.

[217] See responses to Ofgem's information request under Section 26 of the Competition Act 1998, dated 24 August 2005 by: (1) Siemens Energy Services Ltd, received 29/9/05, Document 5997 (2) Scottish and Southern Energy, received 29/9/05, Document 5999 and (3) Eco asset management, received 5 October 2005, Document 6004.

[218] Note of meeting between Siemens and Ofgem held on 17 February 2006, Document 10667, page 3, paragraph 13.

[219] See CML's response to an Ofgem information request, Document 11273, page 3, response to question 4.

> for [sub-contractors] to invest in communication systems with Meter Asset Managers (...) thereby improving the quality and timeliness of the data returned.'[220]

3.73. *[One supplier]*, in response to a section 26 notice, explained that:

> 'The key driver in considering whether or not to provide our own gas meters to customers is customer density within any geographic region…we would require significant market share in any geographic region before considering whether or not to provide gas meters ourselves. Currently we do not have the critical mass of customers to make this a viable option.'[221]

3.74. NG has itself recognised that it had (at the time of signing the MSA contracts) and continues to have significant economies of scale and density resulting from its installed base of meters.[222] This is not surprising given that it still has a market share of 89 per cent. This gives NG a significant advantage in carrying out new and replacement work.

Buyer power

3.75. Buyer power is another factor that may be relevant when assessing dominance. The issue of buyer power was examined at some length by the CAT in *Genzyme* where the NHS was the sole purchaser of a drug and ancillary homecare services. Despite the NHS' position as a monopsonist the CAT concluded that its bargaining position relative to Genzyme was weak as the NHS had no alternative but to deal with Genzyme.[223]

3.76. NG has argued that it did not have a strong bargaining power that merits a finding of dominance. It argues that it was exposed to a large asset stranding risk that gas suppliers were aware of and took advantage of, using it to negotiate lower prices and improved terms.

3.77. The Authority has concluded that the main domestic gas suppliers did not have sufficiently strong buyer power to counteract the substantial market power held by NG at the time of entering into the MSA contracts. The Authority relies on the following evidence.

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[220] Response provided by ECO European to an Ofgem information request, dated 27 September 2005, Document 6004, page 9, response to question 20.

[221] *[Excised]* response to a section 26 notice received 29th September 2005, Document 5999, page 3, response to question 4.

[222] See 'Metering Business Strategy Analysis and Comparison of Options', Document 00026 page 13, dated 28 February 2002 which states: "Economies of scale in the legacy business can be built upon to deliver growth." NG explains this statement in its response to a section 26 notice dated 22 November 2006, Document 11244, by stating that "This comment appears to be a recognition that the legacy business has some fixed costs and therefore a higher number of meters would lead to a lower unit cost so supporting a platform for growth in the future", page 43, response to question 11.

[223] *Genzyme v OFT* [2004] CAT 4, paragraphs 241-289. Genzyme was the monopoly supplier of the drug and the predominant supplier of the associated homecare services. The CAT stated that the issue was whether the NHS yielded sufficient countervailing buyer power to negate Genzyme's dominant position. To establish this, the CAT examined the structure of the NHS and the circumstances in which it makes its purchasing and prescribing decisions.

NG's strong negotiating position

3.78. All domestic-sized gas meters are procured by gas suppliers. The six biggest gas suppliers currently hold a market share in the domestic gas market of close to 100 per cent. The following table illustrates the market shares of suppliers at the time of entering into the MSA contracts and how the market shares of these suppliers have changed over time.

Table 6: Table to show market shares of domestic gas suppliers in the supply of gas in Great Britain (per cent)

	Dec 2002	June 2003	Dec 2003	June 2004	Dec 2004	June 2005	March 2006
BGT	63%	62%	61%	59%	57%	53%	52%
Powergen	12%	12%	12%	12%	13%	14%	13%
SSE	6%	6%	7%	8%	8%	9%	10%
RWE npower	9%	9%	9%	9%	9%	9%	10%
Scottish Power	5%	5%	6%	7%	8%	9%	9%
EDF Energy	5%	5%	5%	5%	5%	5%	6%
Others	0%	0%	1%	0%	0%	0%	0%

Source: Ofgem[224]

3.79. Given BGT's size, NG argues that it could have exerted substantial countervailing pressure on NG. However, the evidence and facts concerning this market indicate that this has not been the case.

3.80. The retail market is dynamic and highly competitive. Table 6 shows that BGT has lost over 10 per cent of the total domestic retail market (and close to 20 per cent of its own gas customers) in three and a half years. BGT's customer losses are continuing. When considering whether to sign up to the MSAs, BGT had to consider the possibility of other suppliers not following suit, leaving BGT at a potential competitive disadvantage in a changing market by being locked into long-term contracts with NG. One risk faced by BGT and the other signatories to the MSAs was that in signing up to the MSAs, they would be prevented from responding to any large-scale increase in customer demand for smart meters.[225] These five suppliers were taking real risks in signing up to the MSAs.

[224] Ofgem document, 'Domestic Retail Market Report', March 2006, Document 11358, page 18. Ofgem's Domestic Retail Market Report, June 2007, 169/07, indicates that BGT's market share continues to decline. This report can be found at:

http://www.ofgem.gov.uk/Markets/RetMkts/Compet/Documents1/DRMR%20March%202007doc%20v9%20-%20FINAL.pdf

[225] For further discussion of the impact of the MSAs on product innovation see Chapter 4.

3.81. The evidence also indicates that NG was a "must deal" partner (for BGT and others), due to its large installed base of meters. The Authority uses the term "must-deal" to mean that gas suppliers were obliged to choose one of the deals (either the P&M or the Legacy contracts) offered by NG since gas suppliers did not have the option of replacing all (or even a significant number) of NG's meters in a relatively short space of time. This situation because gas suppliers' customers already had NG meters installed and it would take a significant period of time to replace them.

3.82. NG has argued that BGT did threaten to switch out meters, that this would have led to stranding costs of around £600m, and that this threat was real.[226] Whilst the Authority recognises that BGT was in a position to exert an impact on bargaining dynamics,[227] the reality is that BGT's ability to use the threat of switching its gas meter requirements to CMOs as a bargaining lever was, and remains, highly constrained by practical logistics. Given the practicalities of meter installation CMOs would require a number of years to replace the entire installed base of NG gas meters.

3.83. Therefore, there is no realistic prospect that BGT could exercise sufficient buyer power over a sufficiently short time scale to negate NG's market power. It is clear that, over time, BGT could - subject to the constraints imposed by the MSAs - substitute away from NG and secure alternative meter provision on a large scale. But for a period of a few years it faced no choice and had to take a substantial proportion of its domestic meters from NG. In support of this is the fact that, whilst BGT may have been able to reduce the rental price offered by NG it was not able to achieve from NG as low a price as is seen in the CMO contracts.

3.84. BGT noted in its comparison of the proposed Legacy deal compared to an accelerated meter replacement programme that:

> 'an 8 year period (..) we believe is the most aggressive exchange programme that could be delivered'.[228]

3.85. This particular threat was not sufficient to act as a significant constraint on NG. In its "Assessment of market power" guidelines, the OFT states that a buyer's bargaining strength might be enhanced if "the buyer… could *readily [emphasis added]*…switch substantial purchases from one supplier to another…" and if "the buyer could…sponsor new entry by another supplier (e.g. through a long-term contract) *relatively quickly [emphasis added]* and without incurring substantial sunk costs."[229]

3.86. NG recognised the limits to BGT's bargaining power and noted in a paper to its Executive Committee that:

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[226] NG's written response to the Supplementary Statement of Objections issued on 27 April 2007, 10 August 2007, Document 11380, pages 75-78, paragraphs 47-58.

[227] BGT was, for example, able to negotiate a reduction in the rental price.

[228] Internal paper for a Centrica Executive meeting titled 'Long-term contract with [NG] for the provision of gas meters', dated 16/23 June 2003, attached to an internal email dated 15 November 2002, Document 5867, page 3.

[229] OFT guideline 415, Assessment of Market Power, paragraph 6.2.

> 'Although [BGT] can save close to £*[4.50-5.50]*/meter/year on every [NG] meter they have replaced, practical logistics limit the pace with which these reductions can be achieved across their 13 million customers. (...)
>
> If [BGT] act rationally, they should be willing to trade-off their ability to secure a large (£*[4.50-5.50]*/meter/year) discount on an initially small, though growing, population of meters, for the ability to secure a smaller, though still sizeable discount on all the meters they need for their customers'.[230]

3.87. NG appeared to be willing to take the risk that replacement would not occur as quickly as BGT thought. As NG has noted in its written representations, in a meeting on 1 July 2002 when BGT and NG met to discuss the MSAs,:

> 'We [NG] explained that we try to match our estimate of their metering costs based on our view of how fast meters could be replaced and our estimate of the competitive price of meters. On this we judged that our prices should be attractive. We confirmed that we [NG] would take the risk that they [BGT] could not replace meters as fast as they say'.[231]

3.88. NG also recognised its own 'strong negotiating position' and in an internal NG document, attached to an email sent on 7 October 2003 with the subject line 'Jam tactics', stated:

> 'We still want to do a deal now because (...) we are in a strong negotiating position now which may weaken as market develops (sic)
>
> Climate for effective competition (sic) not moved on at the pace originally envisaged and stranding threat is therefore [materially] weaker than 12 months ago (…)
>
> the competitive threat from non-BGT suppliers in the short to medium term is low (…)
>
> BGT was finding the mobilisation of meter operators more difficult than expected'.[232]

3.89. NG further recognised that choosing the MSAs was "a one and only election".[233] NG has provided no satisfactory explanation for this statement.[234] There was no provision in the contract for suppliers to be able to move back onto the P&M contract. Although there was an option to remain on the P&M contract, NG recognised that once a supplier had signed up to the MSAs, there was no scope for exiting them without incurring substantial termination charges.

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[230] Internal paper by NG to the Lattice Group Executive Committee titled 'Metering: background and issues', dated 16 April 2002, Document 60, page 2, paragraphs 11-12.

[231] NG written representations in response to the Supplementary Statement of Objections, Document 11380, page 76, paragraph 52 and Note of Meeting with BGT, dated 1st July 2002, Document 299, page 1, paragraph 1.

[232] Internal NG document titled 'Project Jam, way forward' 7 October 2002. This document was attached to an internal NG email sent on 7 October 2003, Document 2430, page 4. To note: this document appears to have been wrongly dated; it should have been dated 7 October 2003 since it is attached to an email of that period.

[233] JAM Notes, Document 2165, dated 12 August 2003.

[234] See NG response to an Ofgem information request, Document 11244, page 12, response to question 4.

Threat of withdrawal from UMS deal

3.90. NG appears to have suggested it would not sign the deal between its subsidiary UMS and BGT unless a Legacy deal was agreed[235]. The following statement is taken from a BGT board paper:

> 'Negotiations have been substantially completed to award four of the seven new commercial meter operator contracts to Transco's new unregulated metering business, UMS. Although there is no direct linkage between the two deals, the new National Grid Board is concerned that, in the absence of a deal on Legacy meters, we could be using their subsidiary to destroy value in their regulated business through an accelerated meter exchange programme. They have therefore indicated that they would be unwilling to sign the new commercial contracts, unless there was an understanding that British Gas would agree to a Legacy deal. If the commercial contracts could not be awarded to UMS, there would be a delay in delivering the benefits from competition, whilst alternative meter operators were sought'.[236]

3.91. Talking briefs for National Grid Gas (not UMS) senior management during negotiations with BGT illustrate that NG required signature of the Legacy MSAs if the UMS deal was to be offered:

> 'We [National Grid] want to sign the UMS deal but if it is against the five year backdrop [i.e. BGT replacing legacy meters within 5 years] we can't. Hence we want to establish quickly that a legacy deal can be done at which point we will sign UMS'[237]

3.92. NG was also aware that they held the threat of 'personal and commercial consequences' if there was no legacy (or UMS) deal and that they should make this explicit to BGT:

> 'Let them [BGT negotiators] know that UMS will provide a very competitive service and price to their competitors.
>
> ….Be explicit about what we think the personal and commercial consequences of no legacy/no UMS deal would be.
>
> …If we don't do a deal with you, we will offer something similar to your competitors…and UMS would be actively seeking to provide them with services. You would be trailing your competitors for a number of years.' [238]

3.93. This evidence confirms that NG threatened withdrawal of the UMS deal unless the Legacy deal was signed in terms suitable to NG (the terms being a long term contract as the Centrica Board paper describes). It does not suggest that BGT had an option of not dealing with NG – BGT's alternative would have been to remain on the P&M contract, but this (as with EDFE) still requires the company to take meters from NG.

[235] See paper titled 'Long term contract with Transco for provision of gas meters' to the Centrica Board attached to an email on 15 November 2002, Document 5867, page 2. See also internal email sent on 20 November 2002, Document 6411, page 1; internal email sent on 31 October 2002, Document 6423, page 1; and response provided by Centrica to an informal Ofgem information request, Document 10474, page,14.

[236] See paper titled 'Long term contract with Transco for provision of gas meters' to the Centrica Board attached to an email on 15 November 2002, Document 5867, page 2.

[237] Lattice presentation slides 'Project Jam'. Document 3935, Slide 5.

[238] Internal NG document titled Negotiating Brief. Document 4028, page 1.

3.94. The Authority is therefore not persuaded by NG's argument that this cannot be interpreted as evidence of NG's market power.

Lack of buyer power exerted by other suppliers

3.95. It is even less likely that other gas suppliers, with much smaller domestic supply market shares than BGT, had substantial buyer power in the negotiation of the MSAs.

3.96. In relation to refusing to accede to EDFE's request to change the provisions of the contract NG has stated that "[t]his was another example of NG being mindful of its licence obligation not to unduly discriminate".[239] The relevant licence conditions require the licensee (National Grid Gas plc) to conduct its transportation business (which includes the provision of metering services for the purposes of this condition) in the manner best calculated to secure that no gas supplier obtains any unfair commercial advantage (including in particular, any such advantage from a preferential or discriminatory arrangement) and to avoid undue discrimination and undue preference between any persons or class or classes of persons in the provision of metering activities.[240] This is not an absolute obligation not to discriminate. Provided that any differences in terms could be objectively justified, the licence condition does not prevent NG offering different terms to different suppliers.

3.97. Nonetheless, there is evidence that, following negotiations with BGT, NG would not even consider the possibility of negotiating a change to the terms of the MSAs with other suppliers – the contracts were offered as a 'take it or leave it' proposition.[241] Furthermore, NG also used the fact that BGT had agreed to the MSA to encourage other gas suppliers to follow suit.[242] Despite repeated attempts by gas suppliers, NG would not change any key terms. This is apparent from a letter from EDFE to Transco:

> 'Naturally, as the only provider of the Legacy metering stock, we are not able to procure an alternative service to the one you offer under the Transco Legacy MSA. However, despite the lack of alternative supplier, we do feel

[239] NG written representations in response to the SSO, dated 6th July 2007, Document 11380, page 83, paragraph 83.

[240] Standard Special Condition A6 (conduct of transportation business) and Standard Special Condition A46 (Non-discrimination in the provision of metering activities) (Standard Special Conditions applicable to both NTS and DN licensees).

[241] Draft paper titled 'Gas metering: Legacy contract offer from Transco' to the SSE Board, dated 25 March 2004, Document 4756, page 3, paragraph 4.12. See also EDFE internal presentation Document 5425, slide 2: 'Transco has offered the market place a standard non-negotiable contract to provide these meters under alternative terms. These terms being referred to as a **'Legacy'** deal." See also Document 2080 titled "Draft Response to John Tarpey": "[I am also aware that npower has expressed a wish to maintain meters owned by Transco. You will know that, for a number of reasons, including the Gas Act requirement that Transco ensures that its meters remain fit for purpose, we are not [presently] prepared to allow our meters to be maintained by third parties and therefore this option has not been built into the 'legacy agreement'] … I agree that Transco's licence could be interpreted as allowing the development of individual commercial terms under certain circumstances. However, in the case of the 'legacy agreement', we took the view that the quickest, simplest approach to developing the contract was to offer the same terms and conditions to all shippers – the greater the choice the greater the complexity and the longer the development time. Other than your request that Transco allows third party maintenance of its own meters, most shippers seemed happy to accept this standardised approach. Once such a standardised approach has been agreed, it is very hard to justify different charges for different shippers".

[242] Draft paper titled 'Gas metering: Legacy contract offer from Transco' to the SSE Board, dated 25 March 2004, Document 4756, page 1.

> that it is reasonable, and in the interests of both parties, to seek to reach agreements on a contract that reflects terms that have been mutually agreed by both parties as opposed to being imposed by one. As the dominant service provider in this market, we trust that NGT would not exploit its position by seeking to unilaterally impose onerous or discriminatory terms on suppliers given the potential competition issues that this would give rise to'.[243]

3.98. Ultimately, EDFE did not sign the deal, indicating that they did not have the bargaining strength they might have first thought.[244]

Conclusion on dominance

3.99. For these reasons, the Authority finds that NG was (and remains) dominant for the purposes of the Chapter II prohibition and Article 82 EC in the market for the provision of installed domestic-sized gas meters (which includes the ancillary service of meter maintenance in Great Britain).

[243] Letter from EDF Energy to *[excised]* (NG), dated 11 July 2005, Document 5775, page 1.

[244] Evidence of EDFE's perceived market strength is set out in an internal email of 24 March 2004, Document 5567, pages 1-4.

4. ABUSE

Introduction

4.1. NG has abused its dominant position by entering into long-term contracts, the Legacy MSAs and N/R MSAs, which contain provisions that foreclose the relevant market to CMOs and ultimately restrict the commercial benefits that gas suppliers and customers might reasonably expect to obtain from competition in the relevant market. NG has failed to meet its special responsibility given its position as a dominant undertaking in the relevant market. The Legacy MSA in particular reduces, to a disproportionate extent, suppliers' flexibility to switch to CMOs and creates very strong financial incentives not to do so.

4.2. As described in Chapter 2, in February 2002 NG started drawing up a strategy to address the risk that gas suppliers would replace NG meters with those of CMOs[245].The one-off payment made to BGT to cover these backdated savings eventually amounted to £13.5 million – or £1.20 per legacy meter at the beginning of 2004[246]. A similar incentive payment per meter was given to all those gas suppliers who signed the contract before the end of March 2004[247].

Features of abuse

4.3. The abuse distorts competition by restricting the ability of CMOs to compete effectively with NG, and, in doing so, reduces significantly the competitive pressures faced by NG. In particular, the MSAs limit and restrict the ability of efficient CMOs to enter the market profitably and and/or to expand their businesses. The likely effect of this is ultimately higher prices and lower quality of service for customers and a significant dampening of incentives for technical innovation in the provision of domestic-sized gas meters.

4.4. The foreclosure results from the following provisions of the MSAs:

(a) ***early replacement charging arrangement****s* in the **Legacy MSAs** that consist of**:**

i) ***'Take or Pay'*** arrangements, that apply in respect of a 'first tranche' of meters if a supplier's level of meter replacement leads to its remaining legacy meter stock being less than that scheduled for by NG under the contract;

ii) ***PRC arrangements,*** under which any additional meter replacement, over and above the ***take or pay*** tranche, results in the payment of a PRC that is set at the same level irrespective of the age of the meter or when it was installed (and may be increased at NG's discretion if it judges that a 'disproportionate number of younger meters have been replaced')[248].

[245] Handwritten notes of internal NG meetings on 5 February 2002 and 7 February 2002, Documents 19A, B, C and D

[246] Internal NG email dated 9 December 2003, Document 2671, sets out the full package offered to BGT on 8 December 2003.

[247] SP for example entered into the MSAs in July 2004 and as such received a reduced incentive payment.

[248] Legacy MSA Schedule 7, Part 2 clause 3.3.

(b) ***bundling of meter maintenance*** under both the Legacy MSAs and under the N/R MSAs, bundled meter maintenance appreciably increases the foreclosing effects of the Legacy MSAs where maintenance visits lead to the replacement of meters which are automatically supplied by NG under the N/R MSA.

4.5. In this Chapter, the Authority:

(a) recites the legal test for abuse, within the meaning of Chapter II of the Act and Article 82 EC;

(b) describes the context in which the MSAs were negotiated;

(c) explains how the MSAs have the actual and likely effect of foreclosing competition within the relevant market;

(d) considers and rejects the arguments advanced by NG in justification of the offending provisions of the MSAs; and

(e) concludes that the MSAs are abusive within the meaning of Chapter II of the Act and Article 82 EC.

The legal test for abuse

4.6. The European Court of Justice has defined the concept of abuse under Article 82 of the EC Treaty in the following terms:

> 'The concept of abuse is an objective concept relating to the behaviour of an undertaking in a dominant position which is such as to influence the structure of a market where, as a result of the very presence of the undertaking in question, the degree of competition is weakened and which, through recourse to methods different from those which condition normal competition in products or services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition.'[249]

4.7. The fact that an undertaking holds a dominant position is not in itself contrary to the competition rules. However, an undertaking in a dominant position has a special responsibility, irrespective of the causes of that position, not to allow its conduct to impair genuine undistorted competition in the common market[250]. This includes an obligation on the dominant undertaking, where appropriate, to modify its conduct so as not to impair effective competition on the market[251].

4.8. The stronger an undertaking's dominant position, the more stringent the demands placed on it to ensure that its conduct does not weaken such competition as remains. It has been held that "the special responsibility of a dominant undertaking is particularly onerous where it is a case of a quasi-monopolist enjoying dominance approaching monopoly, 'superdominance' or 'overwhelming dominance approaching monopoly'."[252] The Authority considers that NG is, and was,

[249] Case 85/76 *Hoffmann-La Roche v Commission* [1979] ECR 461, paragraph 91.

[250] Case 322/81 *Michelin v Commission* [1983] ECR 3461, paragraph 57, and Case T-228/97 *Irish Sugar* v *Commission* [1999] ECR II-2969, paragraph 112.

[251] Case C-12/03P *Commission v Tetra-Laval BV* [2005] ECR I-987, paragraph 56.

[252] *Napp Pharmaceutical Holdings Limited and Subsidiaries v the Director General of Fair Trading* [2002] CAT 1,

at the time of signing the MSAs, 'superdominant'. The Authority does not, however, need to rely on this 'particularly onerous' special responsibility in this Decision in either finding the abuse or considering the appropriate level of penalty. The Authority does not accept NG's arguments that it was not dominant.

4.9. Undertakings in a dominant position may be deprived of the right to adopt a course of conduct or take measures which are not in themselves abuses and which would even be unobjectionable if adopted or taken by non-dominant undertakings.[253]

4.10. The assessment of whether the conduct of the dominant undertaking is abusive is determined objectively, and is not dependent on the intention of the dominant undertaking[254]. Similarly, the European Court has held that the strengthening of the position of an undertaking may be an abuse and prohibited under Article 82 EC, 'regardless of the means and procedure by which it is achieved', and 'irrespective of any fault'[255]. In the *Telemarketing* case, the ECJ held that Article 86 (now 82) applies to an undertaking holding a dominant position on a particular market, even where that position is not due to the activity of the undertaking itself, but to the fact that by reason of provisions laid down by law there can be no competition or only very limited competition in that market[256].

4.11. The CAT regards the relevant counterfactual to be a question of fact to be decided by reference to various interrelated facts and considerations[257]. This is especially the case where a regulatory regime and an undertaking with a large amount of market power have affected the market and there is no existing state of 'normal competition'. Further, 'the fact that certain conduct may be rational behaviour for a profit-maximising monopolist does not mean that such conduct constitutes 'normal competition' for the purposes of the Chapter II prohibition.'[258] The Court of First Instance has held that, 'those considerations, which are applicable in the normal situation of a competitive market, cannot be accepted without reservation in the case of a market on which, precisely because of the dominant position held by one of the traders, competition is already restricted.'[259]

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paragraph 219. Further commentary at paragraphs 337-339 of the same judgment. See also the Opinion of Advocate General Fennelly in Joined Cases C-395/96 P and C-396/96 P *Compagnie Maritime Belge Transports and others v Commission*, [2000] ECR I-1365, and Case C-333/94 P *Tetra Pak International S.A. v Commission* [1996] ECR I-5951, paragraphs 28-31. See also, the Commission Discussion Paper on the application of Article 82 of the Treaty to exclusionary abuses (December 2005)('the Commission Discussion Paper'), paragraph 59.

[253] Case 322/81 *Michelin v Commission* [1983] ECR 3461, paragraph 57, and Case T-111/96, *ITT Promedia v Commission* [1998] ECR II-2937, paragraph 139.

[254] Case 85/76 *Hoffman La Roche v Commission* [1979] ECR 461, paragraph 91.

[255] See Case 6/72 *Europemballage and Continental Can v Commission* [1973] ECR 215, paragraphs 27 and 29; Case T-128/98 *Aéroports de Paris v Commission* [2000] ECR II-3929, paragraph 170.

[256] Case 311/84 *CBEM v SA CLT and IPB* [1985] ECR 3261, paragraph 16. In the Frankfurt Airport decision, the Commission rejected the undertaking's arguments regarding the fact that its dominant position had been acquired through historical developments, 98/190/EC Commission Decision on Frankfurt Airport, 14 January 1998, OJ 1998 L72/30, paragraphs 97-98.

[257] See for example *Napp*, Judgment of 26 March 2002, regarding reasons for refusing permission to appeal [2002] All ER (D) 537, paragraph 27.

[258] *Napp*, Judgment of 26 March 2002, regarding reasons for refusing permission to appeal [2002] All ER (D) 537, paragraph 88.

[259] Case T-65/98 *Van den Bergh Foods v Commission* [2003] ECR II-4653, paragraph 159.

Actual or likely effects

4.12. Unlike Article 81 of the EC Treaty, Article 82 does not state that it prohibits conduct that has as its object or effect the restriction of competition. In assessing the abuse of a dominant position under Article 82, 'establishing the anti-competitive object and the anti-competitive effect are one and the same thing' and 'it is sufficient to show that the abusive conduct of the undertaking in a dominant position tends to restrict competition or, in other words, that the conduct is capable of having such an effect'[260]. Article 82 prohibits exclusionary conduct which produces actual or likely anti-competitive effects in the market; the competition authority is entitled to rely on inferences or presumptions that would, in the absence of countervailing indications, normally flow from a given set of facts[261].

4.13. Article 82 is aimed not only at practices which may cause prejudice to customers directly, but also at practices which are detrimental to customers through their impact on an effective competitive process, such as is mentioned in Article 3(1)(g) of the EC Treaty.[262] According to consistent case-law, the list of abusive practices contained in Article 82 does not exhaust the methods of abusing a dominant position prohibited by the EC Treaty.[263]

Foreclosure

4.14. Foreclosure occurs when actual or potential competitors to the dominant undertaking are excluded partially or fully from entering the market in an economically viable way to the detriment of competition and customers[264]. It also occurs where competitors are restricted in their ability to expand and where competitors are disadvantaged and consequently prevented from competing more aggressively. The foreclosure effect will be amplified where the dominant undertaking's conduct covers the whole of the market or a significant portion of it[265].

4.15. An additional factor in assessing the degree of foreclosure may be the lack of scope for rival undertakings to use alternative distribution strategies to avoid the effects of the dominant undertaking's exclusionary behaviour[266].

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[260] Case T-203/01 *Manufacture Francaise des Pneumatiques Michelin v Commission* [2003] ECR II-4071, paragraphs 239 and 241. See also *Case C-95/04P, British Airways plc v Commission, Opinion of* Advocate General Kokott*, paragraph 71.*

[261] *Napp*, paragraphs 110-111. See also, the Commission Discussion Paper , paragraph 55.

[262] Case C-95/04 P *British Airways plc v Commission* [2007] ECR I-2331, paragraphs 106-107; Case 6/72 *Europemballage and Continental Can v Commission* [1973] ECR 215, paragraph 26.

[263] Case C-95/04 P *British Airways*, paragraph 57; Case 6/72 *Europemballage and Continental Can v Commission* [1973] ECR 215, paragraph 26; Joined Cases C-395/96 P and C-396/96 P *Compagnie Maritime Belge Transports and others v Commission* [2000] ECR I-1365, paragraph 112.

[264] See the Commission Discussion Paper, paragraph 56. The central concern of Article 82 with regard to exclusionary abuses is thus foreclosure that hinders competition and thereby harms consumers.

[265] See the Commission Discussion Paper, paragraphs 58-60.

[266] For examples of this factor, see the US Court of Appeals cases, *Omega Environmental Inc v Gilbarco Inc*, 127 F.3d 1157 (9th Circuit, 1997) and *United States of America v Dentsply International Inc*, 399 F.3d 181 (3rd Circuit, 2005).

4.16. The ability of some competitors to enter the market is not itself good evidence of the lack of foreclosure. It is not necessary to show that all competition is excluded. As the CFI stated in *TACA,*

> "The mere fact that potential competitors enter the market in any event does not necessarily mean that the conference's conduct is not abusive. The fact that potential competitors entered the market would not mean that those measures had no effect, inasmuch as without such measure the entry to the market might have occurred under different conditions"[267].

4.17. The Court of First Instance has rejected a dominant undertaking's argument that, as its market share and general price levels had fallen during the period of the practices in question, the Commission had failed to prove that the alleged abuses had in fact reinforced its dominant position or restricted competition[268]. The Court of First Instance has also held that the growth in the market shares of some of the dominant undertaking's competitors did not mean that the dominant undertaking's practices had no effect, since, in the absence of those practices, "it may legitimately be considered that the market shares of those competitors would have been able to grow more significantly"[269].

Foreclosure through long-term contracts

4.18. By entering into long-term supply contracts a dominant undertaking may erect barriers to entry and foreclose entry and expansion by competitors:

> "[T]he incumbent firms may through the use of long-term contracts with customers have made it difficult for rivals at a particular point in time to find a sufficient number of customers able to switch supplier that expansion or entry would be profitable"[270].

4.19. In announcing the settlement under Article 9 of Regulation 1/2003 of its Article 82 case against Distrigas, the Commission noted:

> "In certain circumstances long-term contracts give rise to competition concerns because they make it more difficult for competitors to enter the market […]
>
> If long-term contracts allow the supplier to significantly foreclose the market, customers and customers would be better off without them. The reduction in barriers to entry resulting from the absence of long-term contracts will over time increase the competitive constraint on suppliers"[271].

[267] Joined Cases T-191/98 and T-212/98 to T-214/98 *Atlantic Container Line AB and Others v Commission* [2003] ECR II-3275, paragraph 1338.

[268] Case T-203/01 *Manufacture Francaise des Pneumatiques Michelin v Commission* [2003] ECR II-4071, paragraph 239.

[269] Case T-219/99 *British Airways plc v Commission* [2003] ECR II-5917, paragraph 298, upheld by the European Court of Justice.

[270] See the Commission Discussion Paper, paragraph 40.

[271] MEMO/07/407, Antitrust: Commission increases competition in the Belgian gas market – frequently asked questions (see also IP/07/1487), page 4-5.

Foreclosure through bundling

4.20. Foreclosure may result where a dominant undertaking bundles or ties two (or more) products/services. It is also settled case-law that, even when the tying or bundling of two products is consistent with commercial usage or when there is a natural link between the two products in question, tying or bundling may *nonetheless* constitute an abuse within the meaning of Article 82, unless it is objectively justified[272].

4.21. We do not consider the bundling of maintenance with the provision of meters under the MSAs to be a separate abuse. The bundling of maintenance clearly exacerbates the foreclosing effects of the MSAs. This is because even where a supplier is using one or more CMOs to provide new and replacement meters, NG's maintenance of its legacy meter stock will lead to NG replacing both PPMs and DCMs. NG will then supply these meters under the N/R MSAs. The number of meters NG replaced as a result of such maintenance visits is significant in the context of the foreclosure effects created by the early replacement charges (for example 15% of PPMs are replaced on maintenance visits, which accounts for 30% of the glidepath). But they would not be sufficient or significant enough in the absence of these other features to constitute a separate abuse.

Objective justification

4.22. Exclusionary conduct may escape the prohibition of Article 82 in case the dominant undertaking can provide an objective justification for its conduct or it can demonstrate that its conduct produces efficiencies which outweigh the negative effects on competition.[273]

4.23. According to the Commission, there are in general two types of possible objective justifications. The first type of objective justification is where the dominant company is able to show that the otherwise abusive conduct is actually necessary conduct on the basis of objective factors external to the parties involved and in particular external to the dominant company ('objective necessity defence'). The second type of objective justification is where the dominant company is able to show that the otherwise abusive conduct is actually a loss minimising reaction to competition from others ('meeting competition defence').[274]

4.24. In relation to the efficiency defence the dominant company must be able to show that the efficiencies brought about by the conduct concerned outweigh the likely negative effects on competition resulting from the conduct and therewith the likely harm to consumers that the conduct might otherwise have.[275]

4.25. As regards the 'meeting competition defence', an undertaking may take steps to protect its commercial interests if such steps are based on criteria of economic efficiency and are consistent with the interests of customers[276].

[272] See for example, Case C-333/94 P *Tetra Pak II* [1996] ECR I-5951, paragraph 37.

[273] Commission Discussion Paper, paragraph 77.
[274] Commission Discussion Paper, paragraph 78.
[275] Commission Discussion Paper, paragraph 79.
[276] *Irish Sugar*, paragraph 189.

4.26. The recovery of sunk costs *may* be an objective justification for what is otherwise anti-competitive conduct. This is particularly the case in relation to long-term supply agreements where ***customer specific sunk costs*** are made and need to be recouped.[277] In this regard the case law in relation to the application of Article 81(3) is informative as the reasoning for exemption and objective justification under Article 82 is analogous.[278]

4.27. Under both Article 81(3) and Article 82, the measures used to recover customer specific sunk costs must be necessary and proportionate.

4.28. In *Gas Natural/Endesa*, for example, the Commission closed its investigation into Gas Natural's long term supply agreement with Endesa because the ultimate terms of the contract were modified so as to be proportionate and brought more competition to the market.[279]

4.29. The general principle that an objective justification will only be found to exist where the conduct complained of is necessary and proportionate was also clearly set out by Advocate General Kirschner in *Tetra Pak Rausing SA v Commission*:[280]

> '[t]he principle of proportionality is of primary importance:… the undertaking in a dominant position may act in a profit-orientated way, strive through its efforts to improve its market position and pursue its legitimate interests. But in so doing, it may employ only such methods as are necessary to pursue those legitimate business aims. In particular it may not act in a way which, foreseeably, will limit competition more than is necessary.'

4.30. It is relevant to note the view of the Commission as stated in the Commission Discussion Paper at paragraphs 81-82 where the Commission considered the requirements of objective justification for otherwise exclusionary abusive conduct. The Commission stated by way of preliminary comment that the "'meeting competition defence is only applicable in relation to behaviour which otherwise would constitute a pricing abuse". The Commission described the requirements of the defence as being first that the dominant company must demonstrate that the conduct achieves the legitimate aim. Secondly:

> 'the dominant company must…show that the conduct is indispensable, i.e. that the legitimate aim cannot be achieved to a similar extent by less anticompetitive alternatives and that the conduct is limited in time to the absolute minimum. It is for the dominant company to provide all the

[277] In relation to long-term supply agreements the case law relating to Article 81(3) may be informative as similar agreements have been justified under both Article 81(3) and Article 82 for the same reasons. In particular similar approaches are taken under Articles 81(3) and 82 to situations where the supplier has made client-specific investments in order to be able to supply a product. Such circumstances have been addressed under the Commission's Guidelines on Vertical Restraints C291/44 13 October 2000 paragraph 116 (4) in relation to Article 81(3) which identify the 'hold-up problem' as a circumstance where it may be legitimate to allow the supplier to be shielded from competition for a certain period. The 'hold-up problem' occurs where a supplier is required to make long-term client-specific investments which cannot be recouped on termination of the contract. In order for the supplier to assume the risk of such investments, and in order for it to avoid free-riding by its competitors, the supplier's dealings are ring-fenced from competition for the duration it takes to depreciate the investment. The 'ring-fencing' often comes in the form of a non-compete clause or a quantity forcing clause.

[278] See Case T-193/02 *Laurent Piau v Commission*, [2005] ECR II-209, paragraphs 117 and 119 where the Court of First Instance stated that where the conditions of Article 81(3) had been satisfied, in relation to a licence agreement, then Article 82 did not apply. In particular the reasons that the agreement benefited from an exemption under Article 81(3) was because the restrictions were regarded as necessary and proportionate.

[279] Commission Press Release IP/00/297 *Commission closes investigation on Spanish gas company Gas Natural*.

[280] Case T-51/89 *Tetra Pak Rausing SA v Commission* [1990] ECR II 309, paragraph 68.

> relevant information necessary to demonstrate that there are no other economically practicable and less anticompetitive alternatives which limit its short run losses, taking into account the market conditions and business realities facing the dominant company.
>
> As to the third condition of the proportionality test, it must be shown that meeting competition is a proportionate response in view of the aim of Article 82. This requires, with a view to protect the consumers' interest, a case by case weighing of the interest of the dominant company to minimise its losses and the interest of its competitors to enter or expand.'

4.31. In relation to the 'efficiency defence' the Commission set out the requirements as follows (paragraph 84 of the Commission Discussion Paper):

(1) that efficiencies are realised or likely to be realised as a result of the conduct concerned;

(2) that the conduct concerned is indispensable to realise these efficiencies;

(3) that the efficiencies benefit consumers;

(4) that competition in respect of a substantial part of the products concerned is not eliminated.

Burden and standard of proof

4.32. The legal burden of proof rests on the competition authority throughout. The standard of proof is the civil standard (the balance of probabilities) taking into account the gravity of what is alleged[281]. As was stated by the CAT in the *Napp Pharmaceutical* case, the evidence must be 'strong and compelling'[282] but that should not be interpreted as meaning something akin to the criminal standard e.g. no finding of infringement where there exists a reasonable doubt as to the case against the dominant undertaking. The evidence must be convincing in the circumstances of the particular case, and overcome the presumption of innocence to which the undertaking is entitled[283].

4.33. As to objective justification, an evidential burden lies on the undertaking[284]. As the Court of First Instance held in *Microsoft*, the dominant undertaking bears 'the initial burden of proof' in relation to objective justification[285]. The Commission Discussion Paper notes at paragraph 77 (by reference to European Court authority and Regulation 1/2003) that:

> 'The burden of proof for such an objective justification or efficiency defence will be on the dominant company. It should be for the company invoking the benefit of a defence against a finding of an infringement to demonstrate to the required legal standard of proof that the conditions for applying such defence are satisfied'.

[281] *JJB and Allsports v OFT* [2004] CAT 17, paragraphs 195, 197.

[282] *Napp Pharmaceutical Holdings Limited and Subsidiaries v the Director General of Fair Trading* [2002] CAT 1, paragraph 109.

[283] *JJB and Allsports*, paragraphs 200–204 and *Burgess v OFT* [2005] CAT 25, paragraphs 115 and 116.

[284] *Genzyme v OFT* [2004] CAT 4, paragraph 578, Napp, paragraph 111.

[285] Case T-201/04, *Microsoft Corp. and others v Commission and others* (judgment of 17 September 2007, unreported), paragraphs 688-710.

4.34. The competition authority is bound to consider the issue of objective justification in its decision, and in particular any arguments put forward by the dominant undertaking. The competition authority does not have to deal in the decision with all the possible objective justifications for a particular course of conduct that could conceivably be, but have not been, raised by the dominant undertaking[286]. In this context, it is sufficient for the competition authority properly to refute the arguments raised by the dominant undertaking[287].

Context of the abuse

4.35. This section sets out the different components of meter provision and the factors gas suppliers and CMOs will consider when negotiating contracts for these services. Gas suppliers will compare both the annual rental price under any new contracts (the gas supplier will look for better prices and/or better service if the same meter technology is being used but may be prepared to pay higher prices for improved technology such as the ability to read meters remotely) and the costs involved in switching.

4.36. As has been noted in Chapter 2 meter operators normally seek to recover the cost of the meter from gas suppliers through an annual rental charge. To compare the level of rental charges on offer gas suppliers will need to understand exactly what each rental charge covers. The rental charge may be an all-in payment which recovers the cost of the meter, meter installation and all maintenance and other services. Alternatively, suppliers may pay up front for meter installation (NG has required up-front payments for Category 2 meters installed new since October 2000 [288]).

4.37. Suppliers can pay for metering services (such as abortive visits) through a separate monthly fee, on a transaction charge basis or a combination of the two as part of an annual rental charge.

4.38. In addition to the level of the rental charge, the services it includes and the customer service level commitments, gas suppliers will be interested to understand what payments are due when non-discretionary meter exchanges have to be made. The Authority defines ***non-discretionary*** exchanges as when a meter is faulty (for example, a meter is replaced on a maintenance visit), if it was replaced to meet 'policy' replacement requirements ('policy' meters are part of a batch of meters that has been identified as failing in accuracy tests by the meter operator) or when a customer requests a functionality exchange (from credit to prepayment or vice versa). The Authority includes the latter in its definition because it is suppliers' practice is to respond to these requests by changing the meter as the customer demands even though they can exercise some discretion over the level of functionality exchanges (by for example refusing a customer's request).

4.39. Practices for charging for functionality exchanges may vary. CMOs levy a separate charge (not the same as for premature meter replacement) for functionality exchanges. NG recovers any associated costs through the rental charge when a

[286] *Genzyme*, paragraph 577.

[287] *Microsoft,* paragraph 710.

[288] NG written representations in response to the SSO, dated 6th July 2007, Document 11380 B, Appendix 2, page 7.

meter is replaced by a CMO[289]. By definition, once they have entered into a metering contract, gas suppliers will have limited control over the cost of *non-discretionary* meter exchanges. When comparing contract offers, the gas supplier will weigh up charges for non-discretionary meter exchange alongside the rental and other payment commitments (such as maintenance services) to understand the payments that are likely to be due under the contract. In this respect, the functionality exchanges offered free of charge in the Legacy MSAs provides gas suppliers that elect to use CMOs with some financial benefits.

4.40. A metering contract will also specify the charges that are payable if the gas supplier makes ***discretionary*** meter replacements (such as to install a smart meter or a cheaper meter of the same technology). Suppliers can control their exposure to these charges (referred to as premature replacement charges in the MSAs, and technology replacement charges in the CMO contracts). The level of the charge will affect the supplier's incentive to make discretionary meter exchanges.

4.41. In procuring and installing meters, the meter operator makes customer specific investments. Installation costs are clearly sunk unless the supplier has paid an upfront installation charge (NG has applied this practice since 2000 on Category 2 meters installed new[290]). All or part of these investments could become "stranded" depending on when the meter is replaced and rental payments cease. In a competitive market a meter operator *may* seek to set early replacement charges to take account of this stranding risk and seek to recover some or part of any remaining ***customer specific sunk cost***s[291]. However, not all of any meter purchase costs will be sunk especially if, as is the case with PPMs, there is scope for meter companies to refurbish and reuse the meter after it has been removed. Equally, not all sunk costs are stranded once incurred – they are only potentially stranded; lowering prices to competitive levels over time will mitigate or even possibly avoid actual stranding.

4.42. In what follows, we focus on the early replacement charging arrangements that NG has chosen to adopt in the Legacy MSAs and how they impact on suppliers' incentives or ability to make discretionary meter replacements.

Foreclosure

Introduction

4.43. NG has abused its dominant position by entering into long-term contracts, the Legacy MSAs and N/R MSAs, that contain provisions that limit artificially and restrict the commercial benefits that gas suppliers and customers might reasonably expect to obtain from competition in the relevant market. The abuse distorts competition by restricting the ability of CMOs to compete effectively with NG and, in doing so, significantly reduces the competitive pressures faced by NG. In

[289] NG levies a separate charge for functionality exchanges where the gas supplier has not elected for a CMO to conduct meter exchanges and NG conducts the functionality exchange.

[290] NG written representations in response to the SSO, dated 6th July 2007, Document 11380 B, Appendix 2, page 7.

[291] CMOs , for example, set functionality exchange charges so as to recover the remaining contribution to installation costs.

particular, the MSAs restrict the ability of efficient competitors to enter the market profitably and expand their businesses. The likely effect of this is ultimately higher prices and lower quality of service for customers and a significant dampening of incentives for technical innovation in the provision of domestic-sized gas meters.

4.44. On the basis of its analysis of the MSAs, the Authority has found that the MSAs impose significant switching costs on gas suppliers who wished to replace a larger number of meters than the small number of replacements 'scheduled' by the Legacy MSAs. As all gas suppliers apart from EDFE have signed the MSAs, the Authority considers that the contracts constrain a large proportion of the relevant market. As explained in Chapter 2, the Authority has calculated that 93 per cent of the total domestic gas meter points in Great Britain in 2004 were covered by the MSAs.

4.45. If a gas supplier is looking to take advantage of the lower prices (rental charges), better service or new technology offered by a CMO relative to NG, it will need to consider the costs associated with switching. The supplier is only likely to switch to a competitor of NG if the switching costs can be offset by the expected rental savings, reductions in the total cost of supplying a domestic gas customer if a new metering technology is used, or if switching gives rise to another benefit to gas suppliers (for example smart meters may provide service improvements). A smarter meter, for example, may have a higher annual rental but may lead to lower total costs to the gas supplier of supplying a customer by removing the costs of manual meter reads and the supplier's call centre and back office costs associated with disputed bills caused by estimated meter reads. The switching decision a supplier makes will be sensitive to the level of switching costs. As it costs a supplier around £11 a year to rent a DCM from NG, even relatively low switching costs may exceed the commercial benefit of switching based on using the same metering technology and make switching commercially unattractive for the supplier.

4.46. The evidence on file shows that the switching costs in the Legacy MSAs had a direct effect on gas suppliers' willingness to purchase meters from CMOs. For example, in March 2003, BGT informed Siemens' metering company CML, that there would be a reduction of around 15 per cent in volumes for DCMs available for supply by CML[292]. An internal BGT note records:

> "The Siemens contract was at an earlier stage of negotiation when the Legacy contract was signed and the opportunity was taken to reduce Siemens volumes to approx x per cent of the tender numbers. It was considered that further volume reductions would have rendered their business case unviable and would have impacted our ability to fulfil obligations to remove older meters in their area"[293].

4.47. In May 2006, BGT informed CML that it was further reducing volume by purchasing the lowest volume permitted under the contract, to 85% of agreed volumes. BGT informed CML that this reduction was intended to reduce BGT's exposure to legacy meter penalties.

[292] CMLs response to a section 26 request for information, 14th February 2007, document 11325 appendix 4. Further Response by CML to Ofgem's request for information, dated 6 March 2007, Document 11343, page 1 shows that the overall reduction in volume was 13% for DCMs and PPMs.

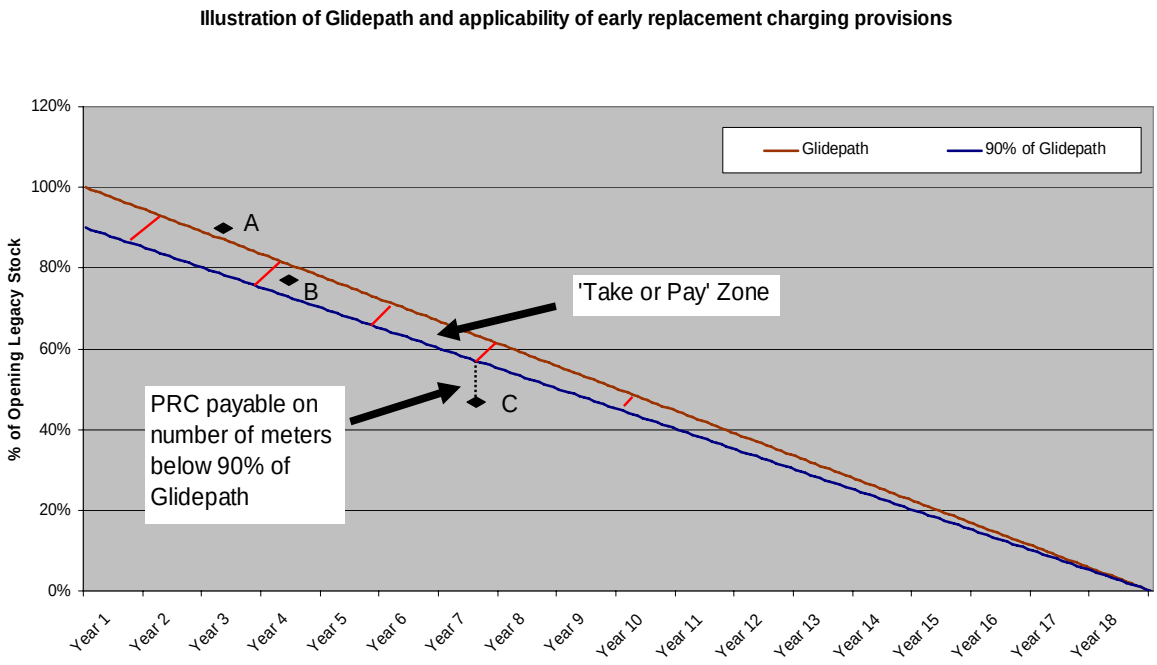
[293] Internal BGT email, subject: [UMS] contract variation, dated 22 July 2004, Document 9825, page 2.

4.48. The Authority's analysis of the provisions in the MSAs which the Authority finds to be abusive, and of their actual and likely effects, is described further below.

The Legacy MSA charging provisions

4.49. The Legacy MSAs define the number of legacy meters that a supplier is 'scheduled' to rent each month, with this number declining to zero, in a uniform manner, over 18 years for DCMs, and over 7 years for PPMs. This scheduled decline in the number of legacy meters is, as noted above, referred to as the 'glidepath', and is illustrated in Figure 5 below.

Figure 5: Illustration of the applicability of early replacement charging arrangements under the legacy MSAs



4.50. Each month NG will record the supplier's actual remaining stock of legacy meters, and if this number is on or above the glidepath (for example, at point A in Figure 5) then the supplier will simply pay the monthly rental charge for each meter that remains in its portfolio. Provided that a supplier ensures that its legacy stock remains on or above the glidepath, meter replacement can be undertaken without any early replacement charges becoming payable. The glidepath allows for up to around 5.5% of the opening legacy DCM stock (c980,000 meters across all suppliers), and around 14% of the opening legacy PPM stock (c279,000 meters across all suppliers), to be replaced free of any early replacement charges in each contract year.

4.51. However, if in any month a supplier's remaining stock of legacy meters falls *below* the glidepath, early replacement charges are payable. The form and level of those early replacement charges depends on how far the supplier's remaining legacy meter stock has fallen below the glidepath:

(a) If the supplier has replaced meters so that the remaining **legacy meter stock is between 90% and 100% of the glidepath** amount, then the supplier will pay NG **the full monthly rental charge on each meter that it was scheduled to rent** at that point in time. The annual rental payable, in the first year of the contract on a NG DCM is about £11 and on a NG PPM it is about £30[294].

This illustrated in Figure 5 above. A supplier with a remaining stock at point B of 95% of the glidepath at the end of Year 4 of the contract will

[294] Legacy MSA, Schedule 7, Part clause 2.1. These were the April 2003 prices.

pay the rental charge on 100% of the glidepath figure in that year: the supplier will pay the rental charge on its 'scheduled' stock - not its actual stock- of DCMs. The area between the glidepath and 90% of the glidepath is thus referred to by the Authority as the **'Take or Pay' zone** because within this zone suppliers are required to pay rental charges as if their remaining stock were equal to the glidepath, *irrespective of its actual level*.

(b) If the supplier's meter replacement is such that the remaining legacy **meter stock is less than 90% of the glidepath** amount, then the supplier must pay NG **a PRC** per meter, on the shortfall between the level of its remaining stock and 90% of the glidepath amount. For the first year of the Legacy MSAs, the PRC was set at £57 per DCM and £37 per PPM[295] although ***NG has the discretion to levy higher charges if it considers that the supplier has replaced a 'disproportionate' number of young meters***.

This is also illustrated in Figure 5. A supplier with a remaining stock at point C on the graph, i.e. 75% of the glidepath amount at the end of Year 7 of the contract, will pay PRCs on the difference between this level and 90% of the glidepath at that time.

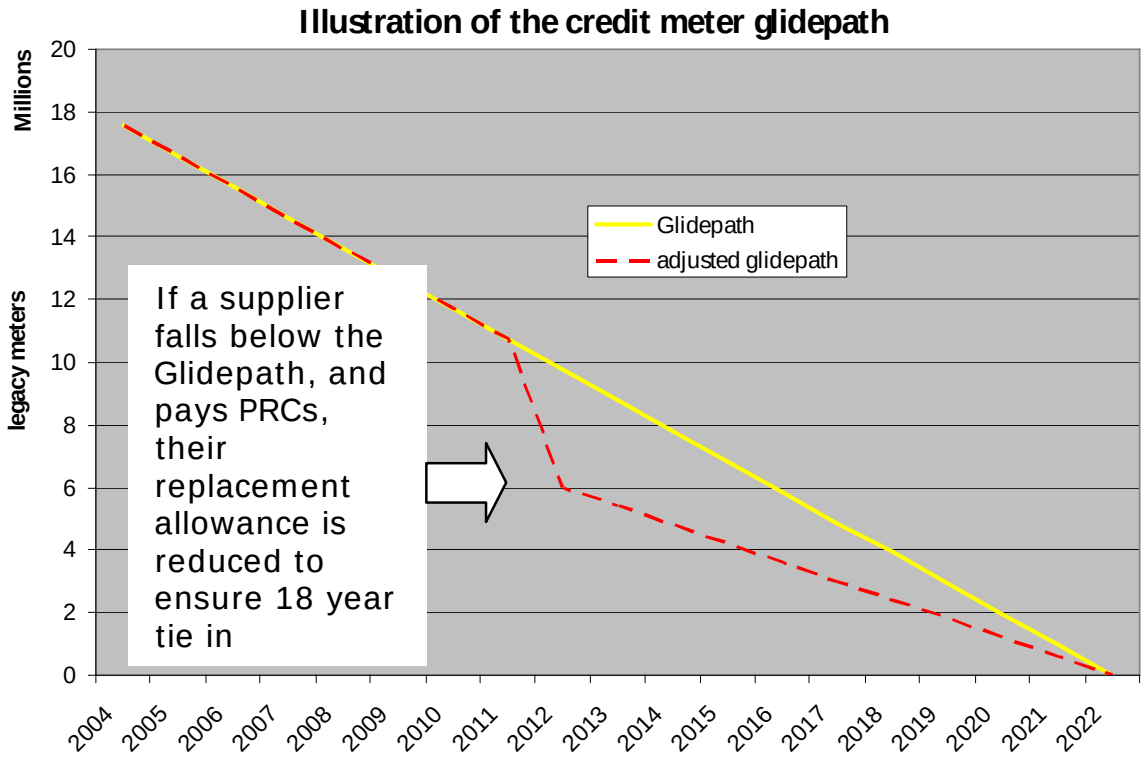
4.52. The Legacy MSA allows NG to reduce the permitted allowance of meter replacements for any gas suppliers whose meter stock reduces. A reduction in a supplier's meter stock may result either from a supplier losing market share or from it replacing more meters than the glidepath allowance. This is illustrated in Figure 6 below. If a supplier rents fewer meters, and where it has exceeded the glidepath allowance paid a penalty charge, the permitted allowance is reduced so that the legacy portfolio of that supplier will still reach zero at the end, and not before, of the 18 year contract period. Although the supplier rents fewer meters from NG in future years[296], it still ties suppliers to NG over the entire contract period (unless they pay early replacement charges in respect of all of their remaining meter stock or pay to terminate the contract). It may also make it harder for suppliers to manage contracts with CMOs because the CMOs are likely to require a certain minimum volume of meter replacement[297].

[295] Legacy MSA, Schedule 7, Part 2, clause 3.1(i).

[296] NG's written response to SS0 of 27 April 2007, dated 6 July 2007, Document 11380, page 115, paragraph 75.

[297] UMS contract with BGT, Schedule 2, Document 4700, page 12, CML contract with BGT, Schedule 2, Document 4711, page 12 & 13, Meter Fit contract with BGT, Schedule 2, Document 4686, paragraph 5.1. In a meeting with Ofgem on 14 August 2007, Document 11404, BGT notes that the volume of meters BGT can replace under the glidepath has been reduced as a result of its loss of customers. This reduction has led to the volumes in the CMO contracts now being greater than the Legacy MSA meter replacement allowance. This is one of the reasons for BGT being in the take or pay zone.

Figure 6: Illustration of the credit meter glidepath and how meter replacement volumes are reduced if PRCs are incurred



4.53. The ***cumulative effect*** of these early replacement charge provisions is to impose significant switching costs on any gas supplier who wishes to replace more than the scheduled amount in the Legacy MSAs provided for by NG's 'glidepath'. These charges are payable by suppliers where they engage in even modest levels of switching away from NG.

4.54. We examine this cumulative impact on switching costs and the deterrent effect it has on the incentive on suppliers' to switch away from NG below. Before showing this cumulative effect, the Authority sets out a number of specific features of the early replacement charge provisions that are relevant to the present analysis.

Early replacement charges are triggered at modest levels of replacement

4.55. Early replacement charges are triggered once a supplier replaces more meters than allowed under the glidepath. The glidepath allowance represents only a small increase over the number of non-discretionary meter replacements that a supplier has to undertake each year in any event[298]. Therefore the level of discretionary meter replacement that the Legacy MSAs allow free of any early replacement charge is, in fact, relatively small.

4.56. As has been explained in Chapter 2, suppliers have to replace a certain number of meters each year for a number of reasons beyond their control: as a result of policy replacement requirements identified by NG, faulty meters removed and

[298] The small increase can be approximated to around 13%, as detailed in Annex 2.

replaced by NG on maintenance visits, and customer-driven functionality changes (with the exchange of a DCM for a PPM, or vice versa). The Authority has examined the DCM meter replacements in 2004, 2005 and 2006 and found that the glidepath replacement allowance only provides a limited number of meters for replacement in addition to those that suppliers would have had to replace for one or another of these reasons. In particular, only about 13% of the charge-free replacements permitted by the glidepath – less than 1% of the gas supplier's legacy DCM stock each year - are available for discretionary replacement. A supplier who wants to switch to a CMO to get lower rental prices and better service is highly likely to want to make meter replacements to that CMO at a rate in excess of the modest levels provided for by the glidepath.

4.57. As explained above at paragraph 2.124, BGT sought to reduce the meter volumes available to the CMOs in order to avoid replacing NG meters at a rate in excess of NG's glidepath. In fact, BGT is and has, for some time, been in the 'Take or Pay' zone i.e. it has replaced more meters earlier than permitted under the glidepath allowance. This demonstrates that CMOs are (or would be) operationally capable of replacing meters at a rate in excess of that set by the glidepath and that suppliers want them to do so.

4.58. The Authority concludes from this that the early replacement charges in the Legacy MSAs are triggered by modest levels of meter replacement and are highly relevant to the switching decisions of suppliers.

The Take or Pay provisions take no account of avoidable costs

4.59. In the Take or Pay zone, suppliers will pay the *full* rental charges for meters that have already been removed. NG does not take account of the fact that it will avoid costs when a legacy meter is replaced by a CMO's meter as it no longer provides or maintains the meter. These avoided costs will include, but are not be limited to, costs associated with maintenance services, IT and call centre costs and some proportion of NG's central overheads. NG's own assessment, for the purpose of calculating PRCs, assumed (other than in the first 4.25 years of the contract[299]) that avoided costs were *[excised]* per year for a DCM and *[excised]* per year for a PPM. These figures are equivalent to *[25-35 per cent]* of the DCM annual rental charge, and around *[60-70 per cent]* of the PPM annual rental charge.

4.60. Nor does NG take any account of the fact that, following replacement, NG is likely to be able to refurbish and re-install meters that have been removed and that meters can have significant value on removal. This is particularly relevant for PPMs given the high number that NG refurbishes and reuses in practice.

4.61. The continued payment of full rental charges by suppliers within the Take or Pay zone means that suppliers will continue to pay maintenance charges even though

[299] In the first 4.25 years of the contract, NG assumed that avoidable costs would be only around *[excised]* for DCMs, that is, less than *[excised]* of the annual rental charge. As was set out in the Supplementary Statement of Objections, 27 April 2007, the Authority does not consider this to be a reasonable estimate. Indeed, as was noted in the Supplementary Statement of Objections, 27 April 2007, the *[excised]* figure used by NG after the first 4.25 years may itself underestimate NG's true avoided costs on meter replacement, since it ignores some future operating costs.

NG will not have to provide any further maintenance services for these meters as they will already have been replaced.

4.62. NG's Take or Pay charges take no account of any of these avoided costs.

A supplier's ability to leave the Take or Pay zone will be constrained by future non-discretionary replacement requirements

4.63. Under the Take or Pay arrangements, the cost of replacing meters more rapidly than allowed for by the glidepath will depend not only on the level of Take or Pay charges but also on how long the supplier is (or expects to be) in the Take or Pay zone. This will determine the number of meters the supplier will have to pay these charges for over time. Suppliers will only be able to get out of the Take or Pay zone by replacing fewer meters in subsequent years at a lower rate than scheduled by the glidepath. However, in practice, a supplier's ability to reduce their rate of meter replacement in future years will be heavily constrained. This is because (as has already been explained) some meter replacements (and the vast majority of free of charge replacements under the glidepath) are non-discretionary.

4.64. This means that when a supplier plans to replace even a small number of meters (even as low as 1% or less of its opening legacy DCM stock) over and above the glidepath allowance, it would expect to pay Take or Pay charges for some meters for more than one year. These arrangements provide a strong disincentive on the part of suppliers to switch from NG Legacy meters to CMO meters even marginally faster than the glidepath allows. The Authority's assessment of the effect of these arrangements is set out in more detail in Annex 2.

The level of NG's PRCs

4.65. Under the Legacy MSA, NG applies average PRCs regardless of the age or year of installation of the meter in question, although a separate average is set for DCM and PPMs[300]

4.66. For the first year of the Legacy MSAs, the DCM PRC was set equal to £57 per meter, regardless of age or year of installation although NG can increase this PRC if it decides that a supplier has replaced too many young meters. This level of charge is high relative to the commercial benefits that gas suppliers would expect to obtain from switching to a cheaper CMO (or UMS) and will reduce their incentive to switch. Because PRCs far exceed the annual rental cost payable – for example about £11 a year for the rent of a DCM - this switching cost is likely to exceed the present value of the commercial benefits of switching to a CMO using the same metering technology as NG. PRCs at this level might arguably be justifiable for only new or nearly new meters (as the purchase and installation cost of buying a new DCM is £70-80). But as explained in Chapter 2, a significant proportion of NG's legacy meters are old and were installed many years ago. As an example, in December 2005 over 5 million of the 15.7m DCMs were over 15 years old.

[300] These are calculated on the basis of NG's assessment of the average revenue (less its assessment of avoided costs) outstanding per DCM/PPM across all DCMs/PPM covered by the Legacy MSAs.

4.67. For the first year of the Legacy MSAs, the PPM PRC was around £37. This represents a much lower proportion of the average cost of purchasing and installing a new PPM (around £170-£200) or the cost of installing a refurbished meter (around £100-110). But, as explained above, NG has announced its intention to 're-balance' PPM and DCM charges. This would result in a significant increase in the level of PPM PRCs but only a very small reduction in the DCM PRC because of the much higher number of DCMs relative to PPMs. The re-balanced PRC for 2005/06 would be around £78.

4.68. The preceding analysis has identified a number of key features of the early replacement charging arrangements under the Legacy MSAs that impose significant switching costs on suppliers. These costs are likely to have, and have in practice had, a significant effect on the incentive on suppliers to switch to competitors of NG. The following paragraphs assess the combined effect of these features.

The combined impact of the early replacement charging provisions on the costs of switching

4.69. A supplier who wants to take advantage of lower rental prices, better service or new technology offered by CMOs will need to consider the costs associated with switching. If the supplier wants to switch at a rate greater than that scheduled by NGs Legacy MSAs for one or several years, the supplier will have to calculate the total amount it expects to pay to NG under the MSAs in the form of both Take or Pay charges and PRCs. The supplier is only likely to switch to a competitor of NG if the supplier's forecast of these cumulative costs can be offset by rental savings or other commercial benefits (such as lower call centre and/or meter reading costs) offered by switching.

4.70. The Authority has assessed the cumulative effects of the Take or Pay charges and PRCs in the Legacy MSAs on suppliers' switching costs under two plausible scenarios where a supplier wishes to take advantage of CMO's lower rental prices by replacing more meters than are provided for in NG's glidepath allowance. Given the lower prices offered by CMOs, suppliers would – but for the switching costs imposed by the MSAs – be willing to do this; indeed, the fact that BGT entered into contracts with CMOs demonstrates suppliers' willingness to contract with CMOs.

4.71. The Authority's analysis is set out below.

Domestic Credit Meters

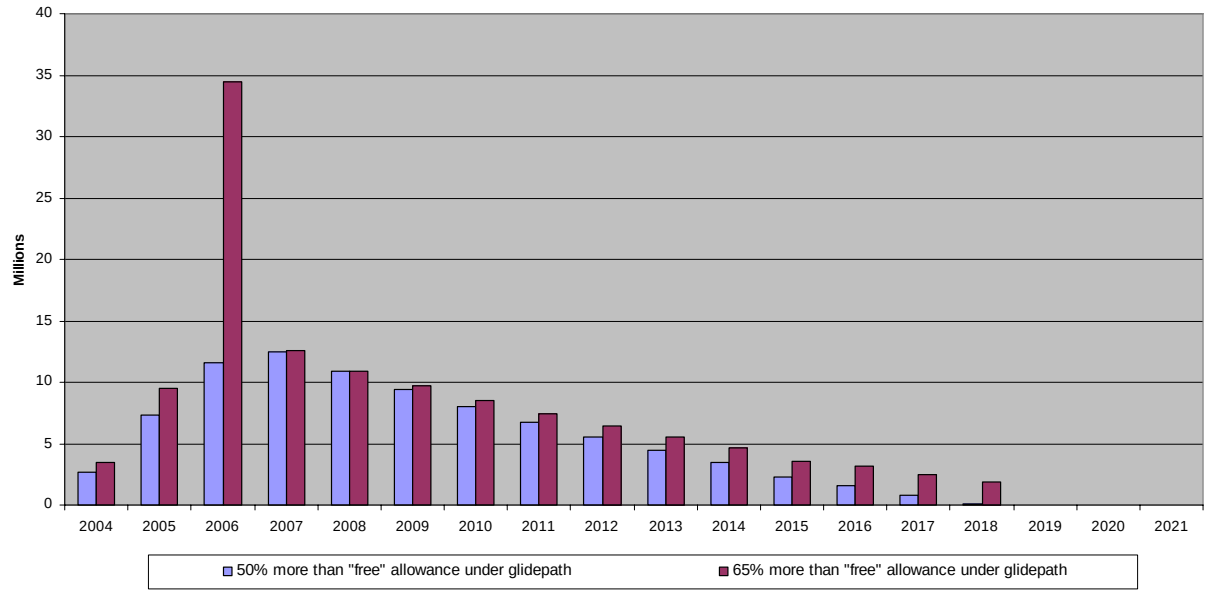
4.72. Figure 7 below shows the total early replacement charges (including Take or Pay and PRC payments) that a supplier would expect to pay if it had chosen to replace more DCMs for the first three years of the contract than is provided for by the Legacy MSA glidepath. The Authority has analysed the costs of replacing 50% and 65% more than the meter replacement permitted free of charge (*'free'*) under the glidepath in each of the first three years[301]. In the context of the overall opening stock of meters of a gas supplier, these scenarios represent a conservative

[301] In each case, the scenarios assumes that, after the first three years, suppliers will only undertake the level of replacement activity required of them as a result of policy replacement, maintenance replacement and functionality change provisions.

replacement programme given the potential savings that suppliers could make. They represent about an additional 3% and 4% of a supplier's opening legacy DCM stock each year for the first three years.

4.73. These scenarios are reasonable in relation to the *actual* levels of replacement that BGT had contracted for ahead of its signing of the Legacy MSAs. In particular, the initial levels of replacement that BGT had contracted for would, if undertaken, have resulted in BGT's replacements under the Legacy MSAs being more than 50% above the free meter replacement provided for by the glidepath in each of the first few years in which the Legacy MSAs have applied, and well over 65% in some of those years. Under the contracts, BGT had the right to require significant levels of replacement over and above contracted volumes. The fact that the same specified rental charge was to apply on such replacements (providing BGT remained within the significant volume flexibility provided for by the contract) provides compelling evidence that CMOs were capable of providing for levels of replacement that are well in excess of those shown in Figure 7 below.

Figure 7: Cumulative effect of Legacy MSA early replacement charging provisions on the costs of replacing more DCMs than scheduled by NG



4.74. The total early replacement costs shown in Figure 7 for DCM replacement total (in PV terms as at contract start) are as follows[302]:

- £87 million under the 50% scenario – or around £60 per meter replaced.
- £127 million under the 65% scenario – or around £65 per meter replaced.

[302] These cost figures relate to NG's total stock of legacy meters, with all suppliers assumed to adopt the same replacement strategy. In practice, the equivalent analysis for any particular supplier would be based on its respective share of the opening legacy DCM population. Whilst there may be some variation in the composition of the legacy meter stock held by different suppliers (such that, for example, the level of required replacement for any given supplier may differ to some extent from the average), both the shape of the distribution of costs over time and the average costs per additional meter removed are unlikely to differ significantly from that shown for the overall legacy DCM stock.

4.75. The Authority draws the following conclusions from this analysis:

(a) The replacement costs per meter are high and are likely to make it commercially unviable for a supplier to switch to a CMO.

(b) Once a supplier goes beyond the Take or Pay zone and triggers PRCs, there is a significant increase in the switching costs. This is shown in the 65% scenario where PRCs are triggered in year 3. The average replacement cost per meter increases from £60 in the 50% scenario to £65 in the 65% scenario.

(c) Early replacement charges apply long after the supplier has stopped the accelerated meter replacement programme. If a supplier only replaced DCMs above the "free" allowance under the glidepath for three years (2004-6), it would continue to pay early replacement charges for an additional 12 years (i.e. to 2018)[303].

4.76. Whilst these levels of switching costs are – relative to the costs of new DCM provision (and the savings which a supplier might be expected to make from switching to a competitor) – extremely high, in practice this analysis does not capture the full extent of the disincentive that the Legacy MSAs create for levels of DCM replacement that exceed that scheduled by NG under its glidepath provisions. In particular, the assessment generates an estimate of the ***average*** costs of replacing a given number of DCMs over and above that provided for by the glidepath in each of the first three years. When assessing the impact of the arrangements on the incentives a supplier has to switch to a CMO, it is also important to consider the ***marginal*** cost of additional meter replacement a supplier faces at different replacement levels. These marginal costs rise rapidly as the level of replacement undertaken exceeds that scheduled by NG under the glidepath provisions.

4.77. For example, we have shown above that if suppliers replaced 50% more than the free allowance under the glidepath in each of the first three years – that is, around 0.5m more DCMs per year than scheduled by NG – then the average cost of replacing those additional 1.5m DCMs over three years will have been around £60 per meter. However, if only a few more than 0.5m DCMs had been replaced in the first year, the cost per additional meter replaced would have already risen to around £50. That is, the cost of additional DCM replacement would have risen to around £50/meter following the replacement of only around 3% of the legacy DCM stock. Thus, the early replacement charges give rise to substantial disincentives for additional replacement after only modest level replacement over and above that scheduled by NG (under the glidepath provisions). This assessment is explained in greater detail in Annex 3.

4.78. Suppliers looking to switch to cheaper CMOs to replace even small numbers of meters additional to that allowed by NG (under the glidepath provisions) would therefore incur early replacement charges that are very high relative to the costs of providing a new DCM and to the savings and/or other benefits that a supplier can expect to receive from switching out legacy meters. This would be expected

[303] This assessment is based on actual required levels of replacement in the first three years of the Legacy MSAs (which as discussed above, determines how quickly a supplier can exit the take or pay zone). While the level of costs that would arise in future years would inevitably be uncertain, a supplier looking to contract with a CMO is likely to look to historic levels of required replacement in order to assess its likely exposure to switching costs. Thus, the Authority considers the above approach to be a robust one.

effectively to remove any incentives on suppliers to switch to CMOs even where they offered lower prices and better service.

Prepayment Meters

4.79. The Authority has conducted a similar analysis to assess the cumulative cost of replacing more PPMs than permitted by NGs glidepath. This is set out in Annex 4.

4.80. The Authority concludes that, given relevant differences in the factual context within which the charging provisions related to the replacement of PPMs apply, the impact of these provisions on the costs to a supplier of replacing more meters than scheduled by NG under the Legacy MSA is likely to be less pronounced than is the case for DCMs. However, NG's proposed rebalancing of charges (as described above) would significantly increase the cost of PPM replacements in excess of those permitted by NGs glidepath, and thus the costs of switching out of NG's PPMs.

The provision of meter "maintenance" under the Legacy MSAs and the N/R MSAs

4.81. Both the legacy MSAs and the N/R MSAs bundle charges for meter maintenance with those for meter provision. The effect of this is to prohibit CMOs or other parties from maintaining NG's stock of meters, which as discussed in Chapter 2, accounted for 93% of meters in 2004. The Authority considers this is particularly significant because of the extent of PPM replacements that NG has typically undertaken on maintenance visits (this is less significant in percentage terms for DCM as proportionately fewer maintenance visits take place - although where they do, meter replacement rather than maintenance is almost always[304] the result).

4.82. Although the glidepath provisions of the Legacy MSA allow for 279,000 PPM 'free' replacements per year across all suppliers, NG replaced around 84,000 legacy PPMs on maintenance visits in the first year of the contracts (that is, around 30% of the 'free' PPM replacement provided for under the glidepath). Whilst the overall number of legacy PPMs replaced by NG on maintenance visits would be expected to decline each year (with the decline in the size of the legacy PPM population), this activity will, over time, result in NG replacing a significant proportion of the opening Legacy PPM stock with another NG meter (which will then be rented under the terms of the N/R MSA) whether or not a supplier has appointed a CMO to undertake meter replacement activity.

4.83. When a legacy meter is replaced by NG on a maintenance visit (other than where that visit followed an emergency call-out), the newly installed meter will be provided to the relevant supplier under the N/R MSA. Since the N/R MSA also bundles the maintenance with charging for the provision of existing PPMs, a significant proportion of PPMs provided on the N/R MSA will also be replaced by NG on maintenance visits, again irrespective of whether a supplier has appointed a CMO to undertake their meter replacement activity.

[304] As noted above, NG's handbook recommends replacement in 100% of DCM call outs.

4.84. Therefore, a signatory to the MSAs which has 'elected' out of the N/R MSA (such as BGT) will find that it is nonetheless contractually caught under the N/R MSA for meters replaced as part of maintenance of the Legacy meter stock. In both situations, the length of the arrangements will effectively be prolonged (the MSAs will in reality be indefinite as maintenance will lead to a continual flow of new meters being installed under long term arrangements).

4.85. Meter maintenance provided under the MSA contract is a relevant part of the contractual environment established by NG as maintenance involves NG providing new meters under the N/R Contract. It is not the Authority's view that there is a separate "bundling" abuse or (therefore) that maintenance *necessarily* needs to be separated to bring the abuse to an end. In the absence of other restrictive factors of MSA, the requirement to take maintenance from NG of itself would not appreciably restrict competition.

A relevant counterfactual

4.86. As was explained above, a significant number of meters will have to be replaced each year as a result of policy replacement requirements identified by NG, faulty meters removed by NG on maintenance visits, and customer-driven functionality changes (the exchange of a DCM for a PPM, or vice versa). The glidepath provisi*ons of the* Legacy MSAs allow for a relatively small number (less than 1% of gas suppliers legacy DCM stock in the first year of the contract) of meters to be replaced – over and above these '***non-discretionary***' replacements – without any early replacement charges becoming payable. Any additional meter replacement will result in the payment of Take or Pay charges and potentially also PRCs.

4.87. The Legacy MSAs have been shown to provide a substantial disincentive on gas suppliers to replace more meters than allowed by the glidepath. In line with this, the Authority has found that the early replacement charging provisions of the Legacy MSAs give rise to substantial barriers to entry and expansion for CMOs.

4.88. The provisions of the Legacy MSAs that give rise to these effects – in particular: the ***glidepath***, the ***Take or Pay provisions***, and the '***averaged'*** use of PRCs – differ markedly from provisions related to the early replacement of meters found in the CMO contracts, and in NG's own N/R MSAs. Importantly, under the CMO contracts and the N/R MSAs, the early replacement charges payable will depend on the characteristics of each of the specific meters that are replaced, including the age of the relevant meter. Thus under the CMO contracts and NG's own N/R MSAs, the level of early replacement charge a supplier pays depends on the period of time that has elapsed since the relevant meter was installed, with, under each contract, the early replacement charge that is payable declining to zero over 20 years for DCMs and 10 years for PPMs.

4.89. As they are the contractual form used by CMOs, UMS and NG in the N/R MSAs, age-related PRC arrangements are a useful counterfactual against which to compare the effects of the Legacy MSAs on the development of competition. The Authority notes that contracts containing age-related PRCs are not the only alternative to the Legacy MSAs. It remains open to NG to seek to recover their ***customer specific sunk costs*** without long term contracts through, for example, competitive rental

charges so that suppliers do not have an incentive to switch to CMOs and replace NG meters before the end of their useful life. As stated in the SSO, NG's dominance in this market makes it difficult to identify an example of "normal" competition[305] and the Authority does not consider that the CMO contracts necessarily represent the benchmark for normal competition in the domestic gas metering market.

4.90. Before examining the implications for expansion incentives of the use of ***age-related PRCs*** in more detail, the following considers the treatment of non-discretionary replacement of meters that were installed less than 20/10 years ago (for DCMs/PPMs) in both the Legacy MSAs and under an age related approach.

Non-discretionary replacement of 'younger' meters

4.91. Table 7 below shows, for the period 2004-06, an estimate of the number of non-discretionary replacements of DCMs that were under 20 years old at the end of 2006. It also summarises the position under the Legacy MSAs and the CMO contracts in terms of the cost implications of those replacements.

Table: 7 Estimate of non-discretionary replacements of DCMs < 20 years

	Cumulative DCMs as at end 2006	**Cumulative Replacement Cost as at End 2006**	
		Legacy MSAs	**CMO-type contract**
Non-discretionary replacement of <20 year old DCMs			
Policy replacement	1.50m	£0	£0
Maintenance Replacement	0.01m	£0	£0
Customer Requested Functionality Changes	0.48m	£0	£[X >0]m
Total	**1.99m**	**£0**	**£[X>0]m**

4.92. The table shows that under Legacy MSAs suppliers would be able to make all ***non-discretionary*** meter replacements within the glidepath allowance without charges. Under the CMO contracts and NG's own N/R MSAs, if a gas supplier replaced meters that had been identified as requiring policy replacement or had been removed as a result of an identified fault they would not pay any early replacement charges, even if the meters were less than 20 (in the case of DCM) or 10 (in the case of PPM) years old. However, where there has been a functionality exchange between DCM and PPM, or vice versa, and the meter is less than 20 (or 10 for a PPM) years old, then a transaction charge is payable under both the N/R MSAs and under the CMO contracts.

[305] Supplementary Statement of Objections, 27 April 2007, paragraph 5.9.

4.93. The Authority accepts that the arrangements in the Legacy MSAs provide certain potential benefits in respect of some meters to suppliers compared to the counterfactual of age-related PRCs (specifically, a slightly lower charge may be payable under the Legacy MSA in respect of young meters). The Authority also recognises that – provided a supplier has elected to use a CMO – the treatment of functionality changes is a relevant factor when considering the benefits of the Legacy MSAs to suppliers. However, we do not agree with NG's estimate of the financial benefit that free functionality changes provide to gas suppliers and ultimately customers. The Authority also does not consider that these arrangements mitigate in any material way for the significant foreclosing effects which the MSAs have for CMOs. In assessing the effects of the MSAs it is insufficient to look to the suppliers only and the potential short term financial gain which the MSAs may provide for them. By binding the suppliers to take a significant proportion of their domestic gas meters from NG for a number of years, NG has substantially foreclosed the relevant market and restricted the ability of CMOs to enter and/or expand in market. This is particularly significant given that competition was embryonic and there was limited information available to suppliers on the prices and services that CMOs would be able to offer. Ultimately, suppliers and consumers will suffer as a result of the lack of competition in the relevant market.

4.94. NG calculated that if gas suppliers had to pay age-related PRCs for customer requested exchanges, the total PRC payment over 3 years would be £24 million for DCMs and £13.5 million for PPMs (a total of approximately £37m).[306] The Authority's view is that these figures are likely to be around £13.4 for DCM and £7.7m for PPM. The purpose of the functionality change cost assessment is simply to challenge the figure that had been presented by NG and to highlight that this should be considered as substantially overstating the relevant benefits to suppliers of not paying a transaction charge following a functionality change. The Authority's methodology is set out in Annex 5.

4.95. The Authority notes that the level of these costs will be largely fixed for suppliers and is something that suppliers could have forecast with a reasonable degree of accuracy when entering into the MSAs. Suppliers would have considered the likely impact of the treatment of functionality charges on their metering costs together with their assessment of the level of rental charge. This is because the likely financial impact of any particular treatment of functionality changes could potentially be offset by adjustments to the rental charge. Consistent with this, the Authority notes that CML's rental charge proposals to BGT were altered in March 2003 due to a variance in the treatment of functionality change costs[307].

The costs of 'discretionary' replacement under an age-related approach

4.96. The previous section compares the costs of ***'non-discretionary'*** meter replacement under the legacy MSAs and a counterfactual. Table 8 below shows the number of legacy meters by age as at the end of 2004, and, for each age level,

[306] NG response to put back letter of 17th October 2007 dated 8th November 2007, Document 11410, paragraphs 35-38.

[307] CML's response to Ofgem's request for information, dated 14 February 2007: Document 11325 (Appendix 4)

shows an age-related PRC and the number of DCMs that a supplier could replace in return for paying that level of PRC.

4.97. These age-related PRCs are derived directly from NG's calculations of the averaged PRC level for 2004, although with an adjustment having been made to NG's avoidable cost assumptions to bring them in line with a more reasonable assessment of avoided costs[308].

Table 8: Estimated costs of meter replacement under age-related early replacement charges – all figures based on position in 2004[309]

Age at End-2004	Age-related PRC on removal in 2004	Number of Legacy DCMs	Cumulative Legacy DCMs (million)
>20 Years	£0	821,000	0.82
19 – 20 Yrs	£6.93	424,000	1.24
18 – 19 Yrs	£13.58	493,000	1.74
17 – 18 Yrs	£19.94	554,000	2.29
16 – 17 Yrs	£26.04	762,000	3.05
15 – 16 Yrs	£31.89	1,056,000	4.11
14 – 15 Yrs	£37.48	1,181,000	5.29

4.98. In Annex 6 we explain that suppliers would incur much lower costs when making discretionary replacements under an age related approach than under the early replacement charging arrangements in the Legacy MSAs. For example, as explained in paragraph 4.77, under the Legacy MSA, for a replacement of only a few more than 0.5m DCMs additional to the glidepath allowance (which is a little over 1.5m meters in total, of which 0.83m are meters which suppliers have the discretion to replace as explained in Annex 6), the Legacy MSAs impose a charge per additional DCM replaced of around £50. By contrast, a similar level of discretionary replacement (0.83m) could be undertaken under an age related approach, but with the cost of additional replacement being around £7 per DCM[310]. For these reasons and those outlined below, based on the economic incentives for switching under the

[308] NG had assumed that avoidable costs for the first 4.25 years of the contract period would be only around *[excised]*- that is, less than *[excised]* of the annual rental charge. For all other contract years, NG assumes avoidable costs equal to *[excised]* – that is, around *[excised]* of the annual rental charge. The Authority does not find *[excised]* to be a reasonable assessment of avoidable costs, and the age related PRCs shown in Table 2 are based on avoidable costs being *[excised]* – in all years. However, the Authority considers that the *[excised]* figure used by NG after the first 4.25 years may itself underestimate NG's true avoided costs on meter replacement. In particular, as was noted in the Supplementary Statement of Objections, this figure ignores some future operating costs. By letter of 20 February 2008 NG confirmed that it had itself marginally underestimated the avoidable costs in calculating the PRCs

[309] The number of legacy DCMs in Table 8 is an estimate designed to give a reasonable indication of the number of discretionary replacements under an age related approach. There will be non-discretionary meter replacements that will change the resulting age profile.

[310] Again, this figure is calculated so as to achieve the same revenue as the MSA PRCs over the life of the meter. This assumes, greatly to NG's benefit, that the level of those charges is not unduly onerous (in the sense of being far greater than actual customer-specific sunk costs).

age-related approach and that under the MSAs, the age-related approach makes switching a large number of meters substantially more attractive than switching a similar number under the MSAs' approach.

4.99. It is therefore clear that there are substantial differences between the Legacy MSAs and an ***age related approach*** in terms of the level of early replacement costs suppliers would face.

4.100. The actual early replacement costs payable under an age-related approach would depend on the decisions made by suppliers and CMOs. Relevant factors would include the CMOs' desire to exploit potential economies of scale with higher volumes and the likely higher density of meter replacement. Meter replacement would not necessarily have to be entirely free of charge to be attractive to a supplier if the CMO's offering were sufficiently attractive in terms of price and service quality (among other things) or if the supplier was considering fitting a smart meter. Critically, an age-related approach provides the supplier with flexibility. In the absence of a glidepath operating as under the Legacy MSA, a supplier may decide to switch greater numbers of meters when it chooses at a lower cost than under the Legacy MSA. Finally, even if (which the Authority does not accept) NG was *entitled* to recover what NG characterises as its 'sunk costs', an age-related approach would not preclude proportionate recovery of these sums.

4.101. In summary, an age related approach would have provided CMOs with significant opportunities to engage in meter replacement programmes, whilst suppliers would face early replacement charges that would be substantially lower than those likely to be payable under the Legacy MSAs.

The actual impact on competition of the costs of switching

4.102. For these reasons, the Authority considers that the likely effect of the Legacy MSAs is materially to reduce the incentives that suppliers have to switch away from NG to CMOs at a rate greater than that scheduled by the glidepath. The Authority also considers that the Legacy MSAs have had an actual foreclosing effect on competing CMOs.

4.103. When BGT (which, at the time, represented approximately 60% of domestic sized meter demand in Great Britain) became aware of the terms that NG was proposing to it in the MSAs, BGT reduced the quantities of meters which it was willing to procure from CMOs, having previously been in negotiations with a number of CMOs to diversify its supplies of gas meters.

4.104. In March 2003, BGT informed Siemens' meter company, CML, that it would acquire around 15 per cent fewer DCMs from CML than it had previously expected [311]. Although BGT suggests that this reflected the experience had been gained from the UUNL and Onsteam contracts rather than driven by the Legacy MSAs[312] an internal

[311] CML's response to a section 26 request for information, 14th February 2007, document 11325 appendix 4. Further Response by CML to Ofgem's request for information, dated 6 March 2007, Document 11343, page 1 shows that the overall reduction in volume was 13% for DCMs and PPMs.

BGT email also explains how this decision was linked to its negotiations with NG for a Legacy MSA:

> 'The Siemens contract was at an earlier stage of negotiation when the Legacy contract was signed and the opportunity was taken to reduce Siemens volumes to approx x per cent of the tender numbers. It was considered that further volume reductions would have rendered their business case unviable and would have impacted our ability to fulfil obligations to remove older meters in their area.'[313]

4.105. In May 2006, BGT informed CML that it was further reducing the volume by the maximum reduction permitted under the contract to 85 per cent of agreed contract volumes. BGT indicated that this reduction was as a result of their fear of exceeding the replacement levels permitted by the glidepath and incurring premature replacement charges. Although BGT is contractually entitled to reduce the volume by this amount, CML had expected to supply 100 per cent of the contractual volumes[314].

4.106. According to Meter Fit, BGT became nervous in May 2004 about the contract volumes for gas meters, which resulted in a tightening of the maximum replacement caps[315]. It is Meter Fit's view that the introduction of these fixed volume caps, requiring Meter Fit not to replace more than a certain percentage of contract volumes, is attributable to BGT's having entered into the MSAs. Under the new contract with Meter Fit, if the volume of meters installed in one year is within a very low range above the cap of the Policy exchange work, the volume for subsequent years has to be reduced. If the volume of meters in one year is in excess of a low percentage above the cap that is considered a material breach of the Meter Fit contract [316].

4.107. In October 2004, BGT also considered ways of renegotiating the UMS contract to reduce the volumes contained in the contract. Although for the purposes of the Act and Article 82 EC, UMS and NGG are considered as a single undertaking (National Grid), BGT's renegotiation of the UMS contract illustrates the extent to which the Legacy MSAs constrain the rate at which any competing meter supplier other than NG can replace Legacy meters. BGT considered the following options:

> "Restrict Onstream volumes to *[50-70]* per cent of the contract volume and pay the compensation payments in accordance with the contract terms.
>
> Negotiate new rental prices with Onstream to reduce the volumes to *[50-70]* per cent of current levels across the 5 years of the contract.
>
> The meter operators could purchase meters from National Grid to make good the shortfall of meters fitted.

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[312] BGT's response to a section 26 request for information , 22nd February 2006, document 10474, question 4, page 18 and letter from National Grid to Ofgem, 19th February 2008, point 4, page 3, Document 11424

[313] Internal BGT email, subject: [UMS] contract variation, dated 22 July 2004, Document 9825, page 2.

[314] CML's response to a request for information, 15 January 2007, Document 11273, page 3, question 6.

[315] BGT entered into a contract with Meter Fit in May 2002, on which renegotiations began in October/November 2003 due to operational difficulties, including delays in setting up IT systems and an original shareholder of the Meter Fit joint venture withdrawing. The renegotiations were concluded in June 2004.

[316] Note of a meeting with Meter Fit/United Utilities regarding investigation into the National Grid legacy and New/Replacement MSAs, 6 March 2006, Document 10766, page 22, paragraphs 5 and 6.

> Preliminary discussions have been held with National Grid and each of the meter operators, and all parties were interested in progressing this option. National Grid however has now indicated that they are reviewing their policy in respect of asset disposal and consequently it is unlikely that this option can be progressed sufficiently quickly to address the immediate mismatch issues"[317].

4.108. Since UMS was entitled to financial compensation if the volume of business was lower than expected, BGT had to consider carefully which option was the least costly. NG has subsequently refused to consider the third option (namely asset disposal)[318]. With regards to these options, BGT went on to note that:

> 'Both options 1 and 2, offer lower cost solutions than utilising the Legacy contract tolerance provisions'.[319]

4.109. Given that BGT, which was and remains the largest gas supplier in Great Britain, was persuaded by the switching costs imposed by the Legacy MSAs to reduce the CMO's meter replacement, it is likely that other smaller suppliers would be heavily affected by the considerable costs which would result from replacing more NG meters than provided for by the glidepath.

4.110. Since the relevant market is characterised by economies of scale in which the ability to obtain scale will be a factor in a company's overall competitiveness, it is a likely effect of the Legacy MSAs that CMOs will find it harder to compete with NG for even the limited meter numbers which suppliers might want to replace with a CMO.

The Legacy MSAs deprived customers of the benefits of competition

4.111. By restricting the volume of meters that gas suppliers are likely to contract with CMOs, the MSAs harm customers as gas suppliers cannot pass on the lower cost, improved service and/or better metering technology that CMOs could provide. Although the rental charge in the Legacy MSA for DCMs is lower than the price cap, NG's annual rental charges are higher for DCMs than those offered by UMS or competing CMOs. This is illustrated by Figure 8 which compares rental charges under the Legacy MSA contracts since 2003/4 with the weighted average rental charge from CMOs and UMS. At present there is an average annual saving of over £1.25 per meter for switching out a legacy meter. Savings earned on meters that were switched four years ago stand at an average of around £1.70 per meter per year due to the fact that NG rentals move in line with inflation while CMOs tend to fix their rental prices in nominal terms.

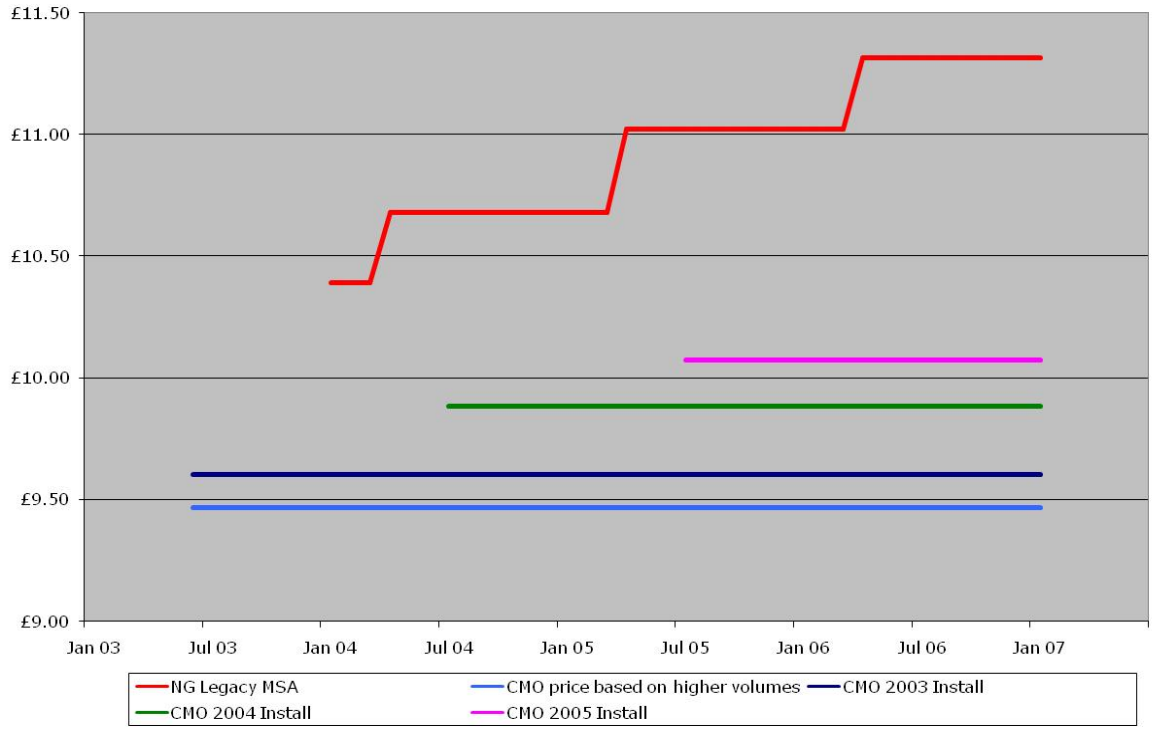
4.112. When considering whether the MSAs have harmed customers by restricting competition, the relevant comparison is the price that would emerge in a competitive market, not the previous regulated maximum price

[317] Internal BGT email, subject [UMS] contract variation, dated 22 July 2004, Document 9825, page 3.

[318] Indeed, National Grid's policy not to countenance sale of meters appears is an absolute one, Internal BGT email, subject [UMS] contract variation, dated 22 July 2004, Document 9825, page 4.

[319] Ibid.

Figure 8: Comparison of Legacy MSA meter rental charges with a weighted average CMO charge [320]



4.113. Figure 8 shows that in 2003/04 NG's meter rental charges for DCMs were £0.79 higher than those being offered by their own subsidiary UMS, or any of the CMOs, when compared to the CMO rental charge for meters being installed in 2003 (shown as the CMO 2003 Install price on the graph). This price differential continued to increase over the duration of the Legacy MSA due to indexing of the legacy MSA rental charge. As mentioned above by 2005/06 NG's rental charges were £1.70 higher than the 2003 CMO rental charge and £1.25 higher than the rental charge for CMO meters being installed in 2005[321].

4.114. Even this comparison may underestimate the harm to customers, as in a competitive market the CMOs prices are also likely to be even lower. The UMS rental charge agreed in the original contract was increased after the contract was entered into as a result of UMS failing to meet the anticipated volumes and as a

[320] UMS figures are from 2005/06 – see Document 11241. CML's rental charges are in Schedule 2 of their contract with BGT, Document 4711, page 32 and Meter Fit's rental charges from Appendix 1 of Schedule 2, Document 4686. These provisions have been redacted due to confidentiality reasons. NG's current charges are taken from their charging statement. The weighted average charge has been calculated from figures in Documents 11240, 11241 & 11242. All rental charges have been redacted due to confidentiality reasons. As the CMO contracts have different start dates we have used July as the start of the contract year. NG's figures for 2005/06 and 2006/07 are taken from their charging statements. The NG charges for 2003/04 and 2004/05 exclude business rates. The 2003/04 charge is that for category 1 Legacy credit meters taken from Legacy MSA, Schedule 7, Part 2, Section 1, paragraph 2.1. The 2004/05 figure was calculated by applying an inflation factor of 1.028055 (Document 11414) to the 2003/04 charge.

[321] The depiction of NG's Legacy MSA meter rental charges for DCMs does not show the change in the treatment of rates that occurred in the first 15 months. To clearly illustrate the argument that legacy MSA prices were higher than an average CMO price, while allowing for a clear illustration, the lower of the two prices was chosen and indexed for the subsequent years. The Authority views this as reasonable as NG's position is fairly represented while the appropriate level of detail is presented in the figure.

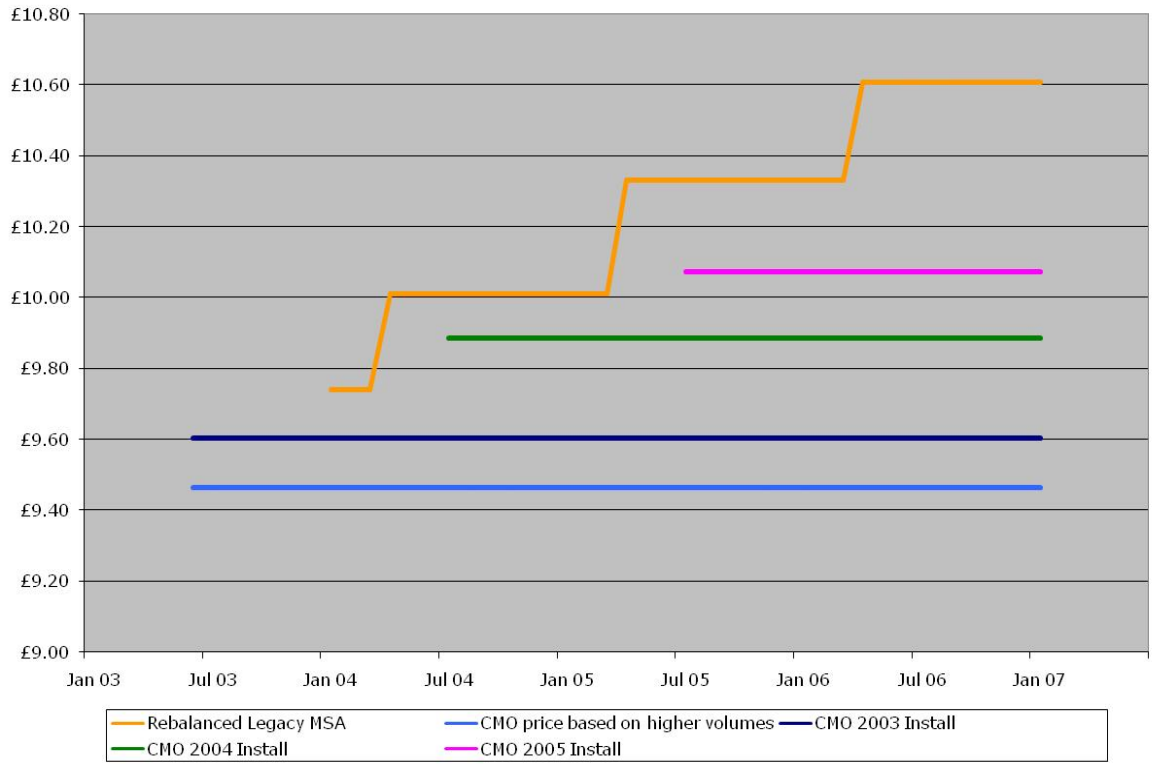
result of BGT wishing to lower volumes[322]. Figure 8 also shows the weighted average rental charges in the CMO contracts based on higher volumes that were originally made available. This is calculated using the price that was in the original UMS contract before the contract was renegotiated and the rental charge increased as a result of volumes being reduced. This weighted average is £0.92 lower than the Legacy MSA rental charge. CML has also explained that during the tendering process a 15% reduction in DCM volumes led to a 5% increase in the rental charge that they were willing to offer[323].

4.115. The threat of this potential loss of market share may also have lead NG to further reduce their rental prices – even unilaterally under long term contracts – to prevent the loss of market share and early replacement of significant number of their meters.

4.116. NG has notified gas suppliers of its intention to restructure by consolidating NG's metering business and UMS into a single structure, which would allow them to rebalance their DCM and PPM rental charges[324]. However, this was put on hold and when considering the effect of the MSAs the appropriate benchmark is the actual price that gas suppliers paid. Nonetheless, even if NG had rebalanced, the DCM charge would still be significantly higher than the weighted average DCM charges under the CMO contracts. This differential would also continue to increase significantly over time as the MSA rebalanced contract prices would also be indexed to inflation for the duration of the contract (unlike the CMO contracts). This is shown in figure 9 below.

[322] UMS's response to a section 26 information request, Document 11241, question1
[323] CMLs response to a section 26 request for information, 14th February 2007, document 11325 appendix 4. Further Response by CML to Ofgem's request for information, dated 6 March 2007, Document 11343, page 1 shows that the overall reduction in volume was 13% for DCMs and PPMs.
[324] NG's letter to gas suppliers informing them of the new tariff following the merger of NG's metering business with UMS, 24 March 2005, see NG's response to a section 26 request for information, dated 12 January 2007, Document 11252, pages 13-14 and NG's 'Response to section 26 notice dated 12 January 2007, question 1-supplementary information', Document 11276, pages 3-7.

Figure 9: Comparison of "rebalanced" legacy MSA Meter rental charges with a weighted average CMO[325]



4.117. The MSAs provide[326] the transfer by NG of its rights and obligations[327] and for the adjustment of the rental charges by increasing the PPM rental charges and reducing those for DCMs. Therefore, although NG's annual rental charges for prepayment meters are currently lower than those of UMS or competing CMOs, they are expected to be substantially higher than CMO prices following the merger of NG's regulated metering business with UMS[328].

4.118. The Authority notes that, even at modest levels of replacement, the likely switching cost under the MSAs (for example, an average of £60 per meter) are well in excess of the likely cost savings from switching to a CMO based on the initial CMO pricing that BGT secured through its tender. It follows that the Legacy MSAs are likely to have had a highly material effect on the market for domestic sized gas meters given that all suppliers except EDFE have signed these contracts.

[325] The weighted average charges are the same as those in figure 3. The rebalanced NG Legacy MSA rental charge is that notified to gas suppliers informing them of the new tariff following the merger of NG's metering business with UMS, 24 March 2005, see NG's response to a section 26 request for information, dated 12 January 2007, Document 11252, pages 13- 14 and NG's response to a section 26 request, dated 12 January 2007, question 1- supplementary information, Document 11276, pages 3-7.

[326] NG's letter to gas suppliers informing them of new tariff following the merger of NGG's metering business with UMS, 24 March 2005, Document 11252, page 13-14.

[327] Legacy MSA, Annexure A, Schedule 7, Part 4, clause 3 and New/Replacement MSA, Annexure A, Schedule 7, Part 4, clause 3.

[328] National Grid has argued that some of this difference is due to the fact that UMS charges separately for some services (such as abortive visits) for PPMs which are included in the Legacy MSA rental price. (See National Grid's written response to the Supplementary Statement of Objections issued on 27 April 2007, 10 August 2007, Document 11380, page 59-60, paragraph 85.)

4.119. The detrimental impact of the Legacy MSAs on entry and expansion conditions, and the resulting impact of this on the competitive pressures faced by NG, are also likely to have resulted in a lower quality of service for customers, and a significant dampening of incentives for technical innovation in the provision of domestic-sized gas meters. This is explained in more detail below.

Restrictions in meter replacements do not benefit customers

4.120. In a competitive market, gas suppliers (and not NG) would decide whether and/or when to replace NG's meters and to what extent. The MSAs allow NG to control the competitive process by restricting the rate of replacement to that provided in the glidepath rather than meeting competition through normal methods, such as reducing costs, lowering prices and improving service. This is demonstrated by NG's own 'wish list' of 15 March 2002. The first item reveals that its aim was to:

> '… control [influence] which meters are displaced and avoid scrutiny of our asset base/records'[329].

4.121. The Authority recognises that gas suppliers will consider the impact of their replacement programmes on customers and that a decision to replace a meter may not be determined solely by a comparison of the annual rental costs of NG against those of a CMO. If a large number of customers did not want to face the inconvenience of an early meter replacement without a substantial reduction in their bills then suppliers would not seek to replace meters even if CMOs offered lower prices. However, this is for *suppliers* to determine through competing with each other to provide what customers want. The Authority considers that it is not appropriate for NG as a dominant undertaking to decide what is best for domestic gas customers (to the extent that this is part of NG's motivation) and to place constraints on the rate at which gas suppliers may replace meters at their customers' premises. If NG believed that customers were unlikely to allow suppliers to change their meter unless a substantial discount was offered, NG did not need to put in place restrictive long term arrangements.

4.122. The Authority does not accept NG's argument that if gas suppliers choose to replace a significant number of meters before they reach the end of their operating life, this decision would be inefficient or wasteful in any meaningful sense. Gas suppliers would replace fully operational NG assets if they could lower their metering costs and/or the total cost of supplying a customer through a more advanced metering technology. This might give rise to some 'static inefficiency' associated with working meters being removed (although in the case of PPMs, NG would be likely to reuse them). But if suppliers choose to do this, that would be because they assessed that the dynamic benefits associated with lower meter prices, improved operating efficiency and customer service would more than outweigh these 'static inefficiencies' over time[330]. This would be equally true if NG's meters were being

[329] Email Attachment, National Grid internal presentation, 'Transco Legacy Meters: Issues for Regulatory and Legal Discussion, 15 March 2002, Document 1067, page 2.

[330] For example if 100 thousand DCMs were replaced early at an average age of 10 years, there would be a static efficiency loss of around £4million. However, if in response to this competitive pressure NG cut rentals by £0.25 per meter then the dynamic efficiency gain in the first year alone would be in the region of £3million, and suppliers would continue to benefit from gains each remaining year of the contract.

replaced with more technologically advanced, smarter forms of meters. This is a normal feature of the competitive process in any market.

Product innovation

4.123. It is widely recognised that innovation is an inherent feature of the competitive process[331]. Innovation in smart metering is currently being developed. These meters may be initially more expensive to purchase but can lower the total costs of supplying a customer by, for example, allowing the supplier to read the meter remotely, reducing the call centres costs to suppliers associated with customers querying bills based on estimated meter reads or allowing suppliers to switch between PPM and credit mode without the need to visit or incur the costs of installing a new meter. Since the MSAs give rise to switching costs that are artificially high, they are very likely to distort the incentives on suppliers to consider replacing existing meters with more technologically advanced meters.

4.124. Although these concerns were not universally felt[332] at the time the MSAs were signed, some CMOs, including BGT and EDFE, were concerned that the Legacy MSAs could stifle innovation. In a meeting discussing BGT's reaction to the Legacy MSA, NG stated (in relation to Automated Meter Reading (AMR)) that[333]:

> 'Robin (BGT representative) is painfully aware that the Legacy deal has "severely damaged" the business case for AMR[334]. [...] Robin confirmed that their benefits case is not linear and so Legacy has a disproportionate impact on their benefits case as well as a significant impact on AMR costs'.

4.125. One of the reasons that EDF Energy did not enter into the MSAs was the fear that they could inhibit its ability to implement new technology:

> 'Changes in metering technology are expected to be introduced in the coming years. These changes are likely to provide remote meter reading, lower cost metering and time of day energy pricing opportunities. New technology metering may be expected to be available within 10 years and could drive premature replacement under the "Legacy" arrangement. The lock-in of up to 18 years with "Legacy" may inhibit EDF Energy's ability to implement new technology if the volume of replacement triggers Premature Replacement Charges. However, such replacement could be made without charge at the end of the service life of meters, although this could make regional pilot trials very difficult'[335].

[331] See for example *Albion Water*, paragraph 663: "To these concepts there is also to be added the idea of competition leading to "dynamic efficiency". This concept sees competition as taking the form of, and leading to, innovation in products and processes as part of the continual pursuit of customers' business – what Professor Armstrong called "the long run benefits of competition" (ibid). A closely related idea is that competition itself contains its own dynamic, the results of which cannot always be foreseen. According to this approach, the dynamism of the competitive process itself tends over time towards lower costs, lower prices and more innovation."

[332] National Grid's written response to the Supplementary Statement of Objections issued on 27 April 2007, 10 August 2007, Document 11380, page 171-172, paragraphs 232-237.

[333] Internal National Grid email subject BGT AMR- Feedback, 16 January 2003, Document 861A, page 1.

[334] Automatic Meter Reader – a device which takes a reading from the meter and transmits it back to the supplier without the need for a meter reader to visit to the meter.

[335] Internal EDFE paper titled 'Options relating to arrangements for the provision and maintenance of gas meters currently provided by [National Grid], dated 24 March 2004, Document 5798A, page 11.

4.126. The Authority further notes that the prospect for smart metering is much stronger now than it was at the time suppliers signed the MSAs. This is due to a number of factors including the falling cost of smart meters, pressure on suppliers from customers to provide more accurate bills and the growing evidence of the back office cost savings that suppliers can make from smart meters. The Authority therefore considers that a likely effect of the MSAs continues to be[336] significantly to reduce or remove the incentives on suppliers to consider introducing smart meters for all or groups of their customers because of the very high switching costs and restrictions imposed by the MSAs.[337]

Conclusion: foreclosure

4.127. For all of these reasons, the MSAs have the actual and likely effect of foreclosing competition within the relevant market. The Legacy MSAs and N/R MSAs are long term contracts that contain provisions that, cumulatively, serve to limit significantly the commercial benefits that gas suppliers and customers might reasonably expect to obtain if there was more effective competition in the market for domestic sized meters because suppliers could switch to CMOs without incurring artificially high switching costs. The MSAs have the actual and likely effect of foreclosing competition within the relevant market.

4.128. In the next section, the Authority assesses NG's arguments that the Legacy and N/R MSAs are objectively justified.

No objective justification

4.129. This section examines arguments raised by NG to justify the arrangements it has put in place in the context of the legal test for objective justification.

4.130. In summary, NG states that the MSAs were reasonable measures to protect the company's commercial interests given a historic situation in which metering assets had been installed without normal commercial protections. NG argues that the MSAs were a legitimate and reasonable method of protecting itself against exposure to asset stranding. NG also argues that the MSAs delivered benefits for customers through lower prices than under the P&M contracts. NG argues that they leave ample scope for meter replacement by new entrants and for the efficient introduction of new technology when it becomes available. NG states that the fact that it charges an annual rental covering maintenance as well as the provision of its meters is normal, appropriate and does not in any way hinder effective competition in meter provision from CMOs by depriving them of significant opportunities for meter replacement[338]. NG argues that no-one has been disadvantaged by the approach adopted in the MSAs, and that the MSAs do not discourage gas suppliers from replacing any more meters than they would do under an age-related approach. It argues that an age-related structure would have resulted in gas

[336] For the avoidance of doubt, as the preceding paragraphs illustrate, it was entirely predictable at the time of entering into the MSAs that the ability to introduce new technology would be impeded.
[337] Suppliers and meter providers may be delaying installation of smart meters while this issue is considered by Government see: http://www.berr.gov.uk/files/file40456.pdf.

[338] NG's written representations, Document 11231, page 12, paragraph 26, bullet point 4.

suppliers being allowed fewer meter replacements without charges, and it would have resulted in BGT paying more than under the MSAs.[339]

4.131. The Authority does not (and never has) considered that it is a ***per se*** abuse to enter into long term contracts for domestic gas meters that levy charges for the early replacement of meters. In particular, the Authority recognises that the use of early replacement charges ***may*** be necessary and proportionate to allow for the recovery of ***customer specific sunk costs*** and that the provision of domestic sized gas meters can result in some customer specific sunk costs. The cost of installation is clearly customer specific and sunk unless specifically charged for up-front (as NG has done for Category 2 meters installed new since 2000 [340]). The cost of the meter will only be customer specific and sunk if the meter cannot be reused. For meters, such as PPMs, that can be reused (and indeed are, by NG), the customer specific sunk cost will be the cost of the meter less any residual value if it is replaced before it reaches the end of its operating life.

4.132. However, the specific and cumulative charging provisions in the Legacy MSAs that relate to the early replacement of meters do not represent a necessary or proportionate means of recovering customer specific sunk costs. Although the legal analysis does not depend upon it, the Authority notes that the early replacement provisions in the CMO contracts, and in NG's own N/R MSAs, are very different in form and likely (and actual) effects, to those in the Legacy MSAs.

4.133. The provisions of the Legacy MSAs relating to the charging for meter replacement are not objectively justified. The Authority explains the basis for this conclusion in further detail below in the context of NG's specific arguments.

The application of full rental charges in the Take or Pay zone

4.134. NG considers that the Take or Pay arrangements provide flexibility for gas suppliers in their meter replacement programmes because they allow suppliers to replace meters temporarily at a rate in excess of the glidepath without incurring PRCs by returning to the glidepath the following year[341]. NG considers that the costs it would avoid in a year if it did not provide a meter would be around *[excised]* for a DCM and *[excised]* for a PPM. NG also claims that the fact that it does not reduce its charges in the Take or Pay zone to reflect avoidable costs does not have any material effect on the replacement incentives for gas suppliers.

4.135. Contrary to NG's arguments, the Take or Pay provisions of the legacy MSAs are not objectively justified. NG's estimate of the level of avoided costs for DCMs is equivalent to less than *[excised]* of the annual rental charge. This level is not a reasonable estimate. The level of avoidable costs NG assumes when calculating PRCs under the Legacy MSAs is, aside from in the first 4.25 years of the contracts, around *[25-35]%* of the annual rental charge. There is evidence that even this

[339] NG's written representations in response to "Put Back Document" dated 17 October 2007, Document SSO 11410, 8 November 2007.

[340] NG written representations in response to the SSO, dated 6th July 2007, Document 11380 B, Appendix 2, page 7.

[341] National Grid's written response to the Supplementary Statement of Objections issued on 27 April 2007, 10 August 2007, Document 11380, page 124, paragraph 104.

figure underestimates NG's true avoidable costs[342]. Even if NG's *[25-35]%* figure accurately reflected the level of NG's avoidable costs, this would result in a reduction in the annual charge in the Take or Pay zone of *[£3-3.50]* per DCM. This demonstrates the materiality of NG's failure to take account of avoided costs for DCMs on suppliers' costs of switching.

4.136. NG's own estimate of *[excised]* as the avoidable costs associated with PPMs implies that the actual PPM charges levied by NG in the Take or Pay zone have been and remain twice as high as a reasonable level which takes proper account of its avoidable costs.

4.137. These estimates of avoidable costs referred to above relate to the costs NG could avoid ***in a single year***. They do not include the costs that NG would avoid if it was not providing a meter for ***a number of years.*** In particular, these estimates of avoidable costs do not take account of how NG's allocation of corporate overheads might change if its meter numbers or turnover declined. As has been shown above, in practice, suppliers are likely to face Take or Pay charges for a number of years. It follows that NG's Take or Pay charge is very likely to be higher than could be objectively justified.

NG's argument that the Take or Pay arrangements are similar to age related PRCs

4.138. NG has argued that the Take or Pay arrangements are similar to age related PRCs in that the amount payable is broadly equivalent to a PRC for a 19 year old meter[343]. This rests on the assumption that a gas supplier is not constrained in its ability to return to the glidepath and only stays in the Take or Pay zone for one year. NG claims that the Authority is ill-founded in arguing that gas suppliers will be constrained in their ability to return to the glidepath because:

(a) there is no obligation on gas suppliers to use up their glidepath discretionary allowance for functionality exchanges and they could choose to pay PRCs for these replacements instead;

(b) it cannot be assumed that gas suppliers will permanently face obligations to replace policy meters at the Maximum Replacement Number. NG may, in future, reduce the number of policy replacements each supplier must make each year; and

(c) if a supplier is in the Take or Pay zone because it has accelerated the replacement of meters on the policy replacement schedule, NG would, in the following year, require the supplier to replace fewer policy meters.[344]

4.139. The Authority does not consider that these arguments support the view that the Take or Pay arrangements are equivalent to age related PRCs.

[342] Supplementary Statement of Objections, paragraphs 4.51-4.57

[343] NG's Written Representations in Response to "Put Back Document" dated 17th October 2007, 8 November 2007, Document SSO 11410, paragraph 43.

[344] Ibid, paragraphs 65-70.

4.140. NG's first point has no bearing on the Authority's conclusions. The costs to a supplier of discretionary replacements, will be the additional costs that are incurred as a result of the decision to replace additional meters. That is, the relevant costs are those that stem from the use of discretion to replace meters over and above those non-discretionary meter exchanges, including functionality changes, that suppliers need to undertake.

4.141. With regard to NG's points two and three, when deciding to replace NG meters, suppliers will have to take a reasonable view based on the best information they have at the time they take the decision. By letter of 19 February 2008, further elaborated in a letter of 20 February 2008, NG stated that it intends to take steps which would lead to a reduction in the Replacement Number prescribed by NG for policy meters which it anticipates will significantly increase discretionary replacement opportunities. If those steps are taken, and if the impact is as NG describes it in its letter of 20th January 2008, then this may mitigate some of the abusive effects of the MSAs. Any such developments will be considered in assessing the extent to which NG has complied with the directions set out in this decision.

4.142. There is nothing in writing (in the MSAs or otherwise) to suggest to suppliers that if they advanced the replacement of policy meters in one year, NG would reduce the policy meter replacements it requires in future years. Despite the complexity and detail of the arrangements set out in the Legacy MSAs, adjustments to the Replacement Number of the kind referred to by NG are not mentioned. Nor, to our knowledge, has NG written to BGT, or any other supplier, to explain this arrangement.

4.143. NG argues that the non-discrimination requirement set out in its licence would require it to make this adjustment. NG argues that it would be discriminatory to require a supplier that had in previous years replaced more than the scheduled amount of policy meters to make the same policy meter replacements in subsequent years as suppliers that had not. But NG is not required to take into account the individual commercial decisions freely made by each of the suppliers in order to comply with the non-discrimination licence provision. The relevant obligation is not to discriminate unduly and different treatment for different suppliers may be reasonable if there are objective reasons for any difference in treatment. The Authority also notes that, even if NG has interpreted its licence obligations correctly (which it has not), any obligation to provide this flexibility would fall away once NG novates the MSAs to its unregulated metering business, as it has stated it intends to do.

4.144. The Authority considers that the most reasonable assumption that gas suppliers can make at this stage is that ***non-discretionary*** meter exchanges are likely to be at similar levels to those experienced over the first 3 years of the Legacy MSAs.

4.145. Finally, NG argues that:

> "…the reason that British Gas has entered the BLR [Take or Pay] zone in the first place is their volume guarantees to the CMOs… it is clear that any

> difficulty British Gas might face in exiting this band … is due to these same volume guarantees. [345]"

4.146. The Authority considers it entirely reasonable (and there are good reasons to suspect important for the development of domestic metering competition) that gas suppliers make volume guarantees to CMOs. The Take or Pay arrangements cannot be justified on the grounds that gas suppliers could avoid payments in the Take or Pay zone if they restricted their commitments to CMOs to the glidepath replacement rate. The Authority's central finding of foreclosure relies on the fact that, when gas suppliers make volume commitments that exceed the scheduled replacement rate by only a modest amount, they face extremely high switching costs and on the disincentive effect on switching this creates.

The viability of using an age-related approach for early replacement charges

4.147. NG argues that it would have been artificial and extremely difficult to have applied an approach where PRCs were based on the year of installation of specific Legacy Meters given that the legacy stock was large and included meters that had been installed at diverse times over many past years, but had all been subject to uniform charging arrangements. NG also argues that the administrative complexities and costs of a system based on the imposition of age-related PRCs for the legacy stock would have been significant, in part because a substantial fraction of the stock was of unknown age.

4.148. The Authority does not accept that these arguments provide an objective justification for NG's averaged PRCs.

4.149. As discussed in Chapter 2, the Authority notes that in early deliberations, NG had suggested this approach and had intended that PRCs would be age-related and had considered introducing a type of 'Glass's Guide'[346] which outlined the cost of meters of different ages:

> 'All these charges could be incorporated into a book similar to a Glass's Guide for new and used cars. Example: Shipper buys a meter from Transco at £75. Shipper decides to replace the meter in 5 years time and pays a charge say £40 (..). Shipper decides to replace the meter in 5 years time and pays a charge say £20. [Or] Shipper buys a 10 year old meter from Transco for £20… shipper replaces meter after 5 years and pays a charge of £7 and so on. The charges could be expressed as rental charges instead of purchase prices. Transco could waive the exit charge if the meter is not fit for purpose. It looks on the surface to be complicated but if you think of Glass's Guide it incorporates far more numbers than this guide would.'

4.150. The Authority further notes that the methodology NG uses to determine PRCs under the MSAs involves, as a first step, the calculation of 'age-related PRCs' - or, more specifically, PRCs related to length of the outstanding payment period for a meter at a given point in time. The Authority also notes that the Legacy MSAs explicitly provide for NG to monitor and take account of the age of Legacy meters that are replaced. For example, a supplier is required to provide to NG details including the

[345] NG's written response to put back letter dated 8 November 2007, Document 11410, page 18, paragraph 54
[346] NG internal email, 10 June 2002, Document 208, page 2.

year of manufacture of the relevant meter following the replacement of an NG meter by a CMO[347].

4.151. Moreover, the Legacy MSAs explicitly provide that NG will monitor the age profile of the Legacy stock, and if it is "of the reasonable opinion that a disproportionate number of younger Legacy meters (…) have been removed"[348], NG has the right (at its sole discretion) to change the basis upon which PRCs are applied. The Authority notes, in particular, that - as NG has highlighted in its written representations - the Legacy MSAs actually provide for age-based PRCs to be applied under such circumstances, though only to younger meters and at a higher level than would otherwise apply under NG's averaged approach[349]. The Authority considers that the extent of the age profile data that NG has provided in connection with this investigation provides compelling evidence that an age-related approach to PRCs could have been applied to the legacy stock, as was clearly contemplated by NG at the early stages of the development of competition without significant complexity or cost.

4.152. The Authority concludes that it would have been possible in practice for NG to construct age related PRCs for Legacy meters – and indeed it has already done so. It may be that the concerns NG has raised regarding age related PRCs are driven by its desire to protect its 'legitimate interests in recovering the sunk costs in its metering investments'[350] rather than substantial practical difficulties in constructing age related PRCs. In this regard the Authority notes that age-related PRCs can be constructed to recover **customer specific sunk costs**. However, it does not necessarily follow that NG's revenues under a contract with age related PRCs should or would be the *same* as those under the Legacy MSAs, as NG claims they should[351]. Revenues earned through age-related PRCs would likely depend on a number of factors, including the treatment of avoided costs, the treatment of re-use value of refurbished meters and market constraints on the level of age-related PRCs.

The costs of meter replacement under age-related PRCs

4.153. NG claims that it is not possible to assume that averaged PRCs greatly increase the level of early replacement charges that suppliers would pay compared with equivalent age related charges.[352] In particular, NG states that if a gas supplier were to adopt a strategy of replacing older meters first, over the period of the Legacy MSA, then all other things being equal, it would be no worse off doing so under the MSA arrangements than under the CMO arrangements. NG also argues that it is not sensible simply to compare NG's averaged PRCs with age-based PRCs, since the averaged PRCs do not merely comprise a charge in respect of the

[347] Legacy MSA, Annexure A, Schedule 7, Part 2, clause 21.

[348] Legacy MSA, Schedule, Part 2, paragraph 3.3.

[349] NG's written repose to the Supplementary Statement of Objections issued on 27 April 2007, 10 August 2007, Document 11380, paragraph 93.

[350] National Grid's written representations in response to "Put Back Document" Dated 17th October 2007, 8th November 2007, Document SSO11410, paragraph 2.

[351] Ibid, paragraph 3(a).

[352] National Grid's written response to the Supplementary Statement of Objections, Document 11380, page 115-116, paragraphs 76-77.

particular meter which is removed, but also "purchase" the entitlement to remove further meters in future years without paying any charges.

4.154. NG argues that the glidepath provisions of the Legacy MSAs allow far more meters to be replaced free (i.e. without any early replacement charges becoming payable) than under an age-related approach of the kind used by the CMOs. NG also argues that there is no coherent reason why it should allow policy meters (i.e. those identified by NG as being part of a batch of meters that has failed accuracy and/or safety tests) to be replaced free of early replacement charges [353], and that not all of the CMO contracts allow policy meters to be replaced free of early replacement charges [354].

4.155. NG considers that the glidepath/averaging of PRCs approach gives valuable operational flexibility to CMOs who, in practice, cannot instantly replace individual meters wherever in the geographical area they may be situated, as and when they pass a 20 year age threshold[355]. It also argues that there is no proper basis for assuming that gas suppliers will look to replace older meters first, and alleges that the reason for the Authority to make this assumption is that it had advised a gas supplier that it ought to act in such a manner[356]. NG argues that an age-related approach would potentially result in volatile and lumpy replacement levels for CMOs, while the averaging approach used in the Legacy MSAs provides the benefit of allowing year-on-year consistency of meter replacement volumes for CMOs.

4.156. The Authority has set out below the reasons why it finds that none of these factors provides objective justification for the early replacement charging provisions in the Legacy MSAs.

The level of average and age-related PRCs

4.157. Under the CMO contracts and the N/R MSAs, the level of the early replacement charge payable applied to the replacement of any given meter depends on the number of years that have elapsed since that particular meter was installed. The early replacement charge that a supplier would pay decreases each year following installation and falls to zero for PPMs at 10 years and after 20 years for DCMs. The CMO and N/R agreements involve a payment commitment (from the supplier) for each installed meter, with the outstanding commitment declining over time as the period over which rental charges have already been paid increases.

4.158. Under the Legacy MSAs, PRCs are the same regardless of the age of the meter or when it was installed, and are calculated on the basis of an averaged approach, with the PRC for each contract year reflecting the average revenue (less NG's avoided costs) outstanding per DCM/PPM across all DCMs/PPMs covered by the Legacy MSA. Figures 10 and 11 below, compare, for DCM and PPMs in turn, the

[353] National Grid's written response to the Supplementary Statement of Objections, Document 11380, page 109, paragraph 56.

[354] National Grid's written response to the Supplementary Statement of Objections, Document 11380, page 105, paragraph 42.

[355] National Grid's written response to the Supplementary Statement of Objections, Document 11380, page 25, paragraph 76 f).

[356] National Grid's written response to the Supplementary Statement of Objections, Document 11380, page 116-117, paragraphs 80- 83.

averaged PRC defined in the Legacy MSAs for 2004/05 with the age-related PRCs (i.e. PRCs related to length of the outstanding payment commitment for a given meter at a given point in time) that underpinned NG's calculation of the average figures.

Figure 10: Flat rate PRCs in the Legacy MSAs vs. NG's calculation of outstanding payment commitments (for DCMs)

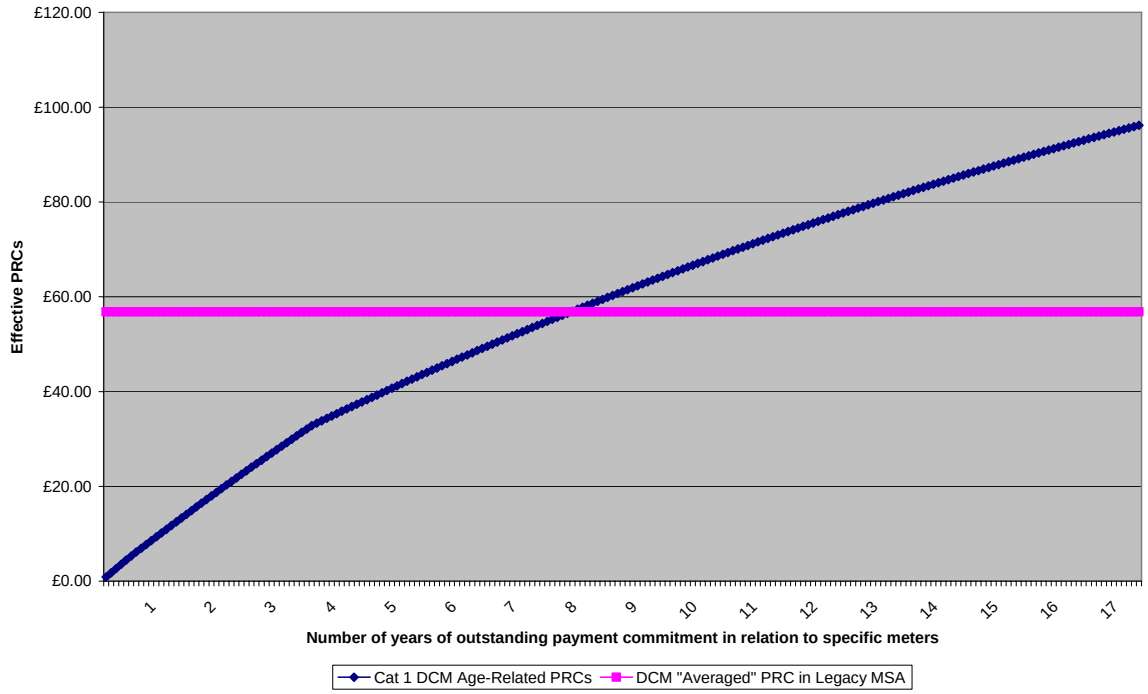
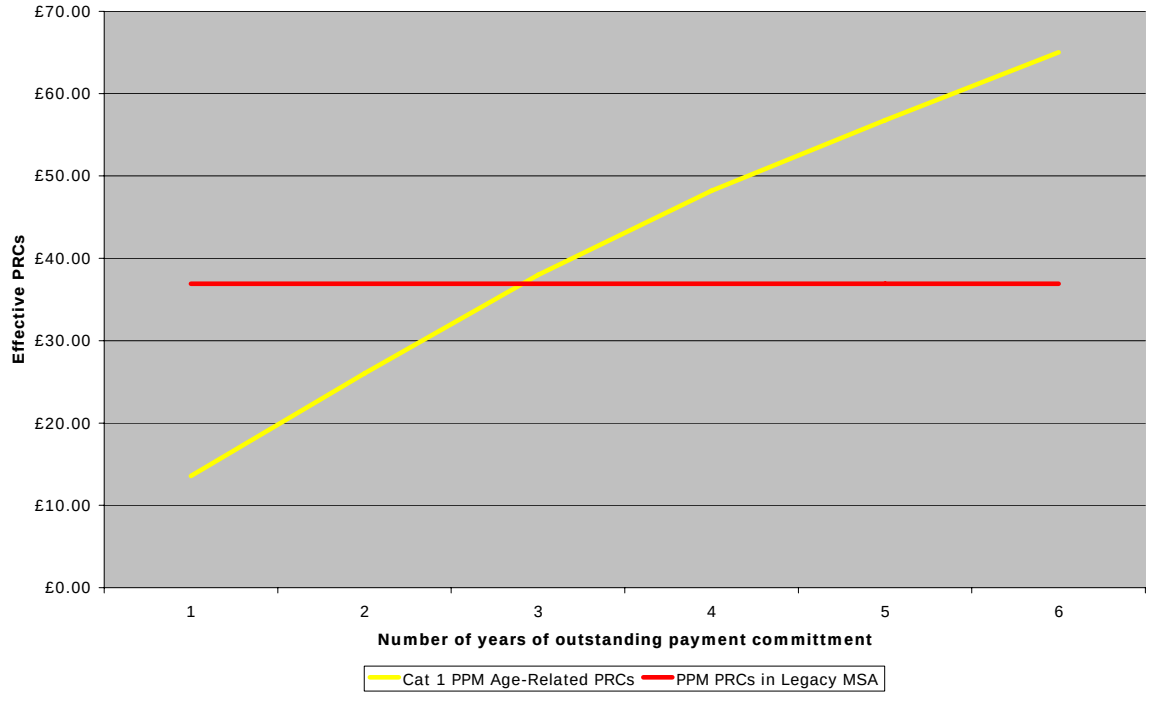


Figure 11: Flat rate PRCs in the Legacy MSAs vs. NG's calculation of outstanding payment commitments (for PPMs)



4.159. In principle, if the entire metering stock were replaced, the overall costs to suppliers under an ***averaged PRC*** and an ***age-related PRC*** approach could be the same. This highlights the fact that, in principle, age-related PRCs can be used to provide security with respect to the recovery of equivalent levels of costs similar to those recovered by averaged PRCs. For avoidance of doubt, this does not mean that the Authority endorses NG's calculation of its outstanding costs or agrees that it has any entitlement to recover a particular amount of revenue under these contracts. Nor does this imply that the approaches are similar in terms of their actual or likely effects on suppliers' incentives to switch or on CMOs' ability to enter the market or expand their market share – and thus on competition.[357]

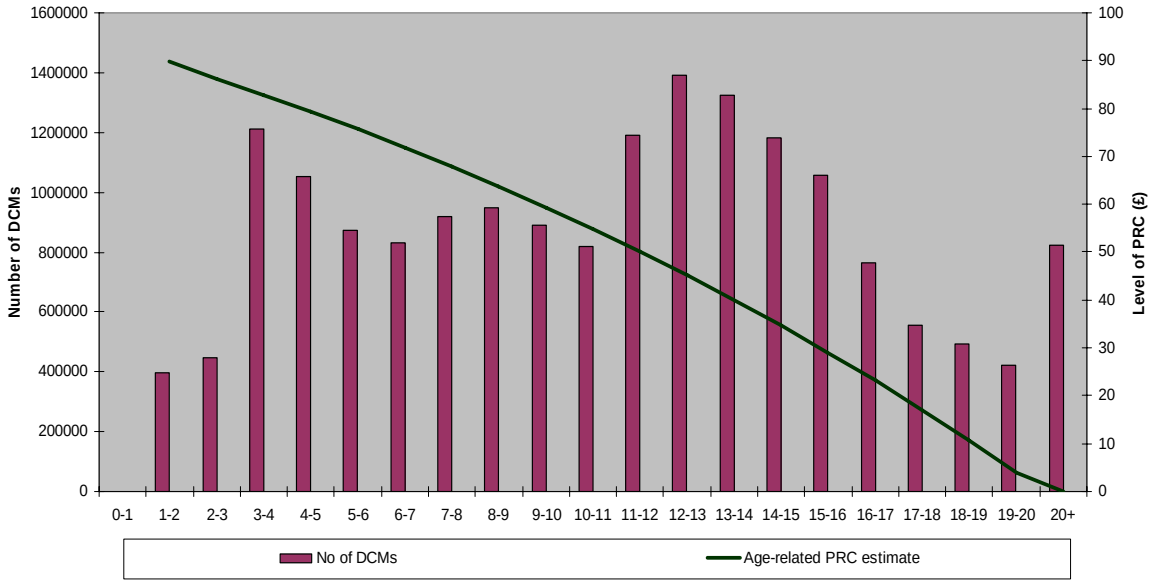
4.160. Figure 12 shows the age distribution of NG meters and plots an age-related PRC over 20 years. By averaging the PRCs, instead of using age-related PRCs (as NG does in the N/R contracts, and as CMOs do), NG increases the level of early replacement charges that suppliers would pay on removal of any of the pool of relatively old meters compared with the use of equivalent age-related charges.

4.161. The use of age-related charges that in sum are equivalent to the PRCs in the MSAs does not – as with the PRCs themselves – properly reflect customer specific sunk costs or take into account properly avoided costs. This approach shows that *even with* a revenue-neutral construction of an age-related PRC, there is a less restrictive counterfactual arrangement (and thus demonstrates that NG has not adopted proportionate measures). However, as noted above, constructing an age-related PRC on the basis of achieving the same revenue as NG would under its existing PRCs assumes that NG is entitled to protect the revenue it has used in constructing the MSA arrangements. The Authority does not consider this assumption is sound: a dominant undertaking may only justifiably adopt proportionate measures to seek to recover actual customer-specific sunk costs.

4.162. The age profile of NG's meters shown in Chapter 2 showed that there are a significant number of relatively old legacy meters: for example, more than 4 million DCMs on the Legacy MSAs were over 15 years old at the end of 2004.

[357] By letter of 20 February 2008 NG confirmed that it had itself marginally underestimated the avoidable costs in calculating the PRCs

Figure 12: DCM age related PRCs and the age profile of DCM stock as at 31 December 2004



4.163. As explained above, modest levels of additional replacement over and above that provided for by the Legacy MSA glidepath will give rise to substantial early replacement charges. In particular, the cost per additional DCM replacement can be expected rapidly to reach a level of around £50, following the removal of only a few more than 0.5m DCMs above the number provided for by the glidepath, that is, a little over 1.5m DCM replacements in total (or 0.83 m discretionary meter replacements). But under an age-related approach, the number of meters that would be 19-20 or over 20 years at the end of December 2004 is such that, following this level of replacement, the cost of additional DCM replacement could be less than £7 per meter. Age related PRCs can provide for meter replacement that gives rise to substantially lower early replacement charges than would become payable under the early replacement charging provisions of the Legacy MSAs.

The level of free meter replacement

4.164. The Authority does not accept NG's argument that, over the first three years of the contract, the glidepath has allowed more meters to be replaced free of early replacement charges than under the approach adopted by the CMOs. Having considered the data on the age profile of Legacy meters provided by NG[358], the Authority's assessment is that over the first three years of the contract, the Legacy MSA glidepath has made *a* similar number Legacy meters (PPMs and DCMs) available for free replacement to the number that would have been available under alternative contractual arrangements involving an age-related PRC based on a 20 year span. The Authority's reasoning on this point is explained in Annex 7.

4.165. The Authority does not accept NG's arguments that there is no coherent reason why it should allow 'policy' (i.e. meters from a batch tested as being below acceptable levels of accuracy) meters to be replaced free of early replacement

[358] Letter from National Grid to Ofgem on 18 July 2007, Documents 11387 and 11387A.

charges (i.e. in addition to those so provided in the glidepath), and that not all of the CMO contracts allow policy meters to be replaced free of early replacement charges. In earlier deliberations, NG had intended to waive the exit charges for meters not fit for purpose[359]. On the contrary, all of BGT's contracts with CMOs require the CMO to keep meters 'reasonably fit for purpose', an obligation relating to the overall level of accuracy of meter batches. BGT has confirmed that: 'No payment is made by BGT for exchange of a meter where that meter type (model & manufacturer) has been identified as requiring replacement following testing by the CMO and as such is part of a Meter Replacement Programme'[360].

4.166. In any event, for the reasons set out above and below, the vice in the Legacy MSA is not that it fails over its term to allow more meter replacement free of early replacement charges than is allowed by the CMOs or would be allowed under an age-related approach. The effect of the glidepath, PRCs and Take or Pay structure in the MSAs is to limit severely the ability of suppliers to choose if and when to switch meters and to what extent. In particular, the effect of the Legacy MSA is to inhibit suppliers from switching meters in the short and medium term, when competition with NG is nascent. The fact that it is possible for suppliers bound by the Legacy MSA to have switched a substantial number of meters by the end of 15 or 20 years is insufficient if by that late stage competition has been stifled through earlier market foreclosure.

4.167. Similarly, about 87% of the meters which may be replaced free of early replacement charges are those which do not lend themselves to a deliberate decision to switch to a CMO. They are the non-optional changes which the supplier must make in any event and are not driven by the supplier. It is significant that the exemption in the MSAs from early replacement charges applies in large part to such meters (87%) and applies to a far smaller number of meters that the supplier might in its own commercial discretion decide to replace with a CMO (13%). Thus, even if the level of replacement allowed under the glidepath free of early replacement charges provides a short term financial benefit to suppliers it does very little to undo the foreclosure of the metering market to the CMOs.

PRC payments and future free meter replacement entitlements

4.168. The adjustment to the glidepath that is triggered by the payment of a PRC under the Legacy MSAs (giving rise to what NG describe as the 'purchase' of an entitlement to remove further meters in future years without charge) is not a material mitigating feature with respect to the effects of the Legacy MSAs. The Authority considers that this 'purchase' is simply a function of the averaging approach employed under the Legacy MSAs, and its effect – in terms of the number of meters that could be replaced in future years without charge relative to an otherwise equivalent age-related approach – is dependent on the age of the removed meters that gave rise to PRC payments, and the specific year considered. In particular, the number of meters that could be replaced in future years without

[359] NG internal email, 10 June 2002, Document 208, page 2.

[360] BGT's response to the request for information issued on 26 July 2007, Document 11398, page 6, question 3(e).

charge would in some cases be expected to be higher under an averaged approach, but in some cases lower.

4.169. The Authority notes that whilst the glidepath is adjusted on the payment of a PRC, a supplier that pays a PRC will continue to pay Take or Pay charges thereafter until they have actually returned to the glidepath. The impact of this glidepath adjustment effect is taken into account in the Authority's assessment of the cumulative effect of the provisions of the legacy MSAs that was described above. Thus, the substantial average early replacement charges were identified allowing for this glidepath adjustment provision.

Operational flexibility and the cost of replacement

4.170. NG argues that CMOs cannot get 100 per cent access to meters and that access rates of around 60% are more realistic[361]. NG also claims that access rate issues and the need for CMOs to achieve density mean that arrangements under the Legacy MSAs are better for competition than the age-related approach which the Authority uses as a counterfactual. NG argues that under the MSAs suppliers can (as long as they remain within the glidepath allowance) replace any meter they wish without incurring any switching costs. In contrast CMOs have to target older meters if they are to get the benefit of lower switching costs under age related PRCs.

4.171. While the Authority agrees that it is unreasonable to assume that CMOs gain access to 100 per cent of the meters that they visit, it does not consider that this undermines the assessment that switching costs would have been lower under the assumed age-related counterfactual arrangements. Access rates would have to have been considerably worse than the 60% claimed (although no evidence was provided by NG to support this figure) by NG before the Legacy MSA provides greater flexibility than an age-related approach. An age-related approach provides a greater number of discretionary meter replacements at a lower switching cost than the Legacy MSAs (where 87 per cent of the glidepath accounts for **non-discretionary** meter replacements). For example, as explained above in paragraph 4.98 above and in Annexe 3 and 6, only 0.83m discretionary meter replacements can be made in a year under the Legacy MSA before the cost of additional DCM replacement reaches £50. As explained by table 8 on page 83, under an age-related approach 5.29m meters could have been replaced at a maximum cost of £37 per meter. Therefore, even at access rates considerably below 100 per cent, the counterfactual arrangements provide gas suppliers and CMOs with greater volumes of meter replacement at lower cost.

4.172. There is a clear link between meter replacement volumes and density: the higher the volumes, the greater likelihood of meter density. For example, when faced with complaints from CMOs about the lack of density in policy replacement meters, BGT sought to increase the volume of meters. BGT's letter to NG of 27th October 2005[362] sets out their concern that NG's requirements in relation to policy replacement meant that 'The meters in the Replacement Schedule are spread too thinly across a

[361] NG's written representations in response to "Put Back Document" dated 17th October 2007, 8th November 2007, Document SSO 11410, paragraph 27.

[362] Document SSO 11384E

wide geographical area…'. BGT stated that '…if there were sufficient additional meters in the Replacement Schedule, then the problem would be alleviated'.

4.173. Furthermore, even if under an age-related approach gas suppliers were to require CMOs to target meters over a certain age only, it is unlikely that this would impede the CMOs in achieving density. First, the conversion to natural gas in Great Britain required the installation of new gas meters which was carried out progressively by Area Boards[363]. British Gas began a meter replacement programme to replace the entire meter population several years after the conversion from town to natural gas (in the late 1970s) when it became apparent that the then current meters were malfunctioning. This meter replacement programme was carried out over several years on a region by region basis. It is therefore likely that a significant proportion of meters in a particular location will have been installed at around the same time and will be of a similar age. Also, significant new housing developments will also have had meters installed when constructed and this is also likely to create density in particular locations of meters of a particular age.

4.174. Secondly, in response to Meter Fit's difficulties with density and work volume BGT revised its policy to allow Meter Fit to replace meters over the age of 15 years for DCMs instead of 20 years and 5 years of PPMs instead of 10 years[364]. Therefore, BGT considered an age-related approach appropriate in providing CMOs with sufficient density (although since the PRC is the same regardless of the age of the meter replaced, this approach would not lower BGT's switching costs).

4.175. Finally, the Authority notes that NG did not provide any evidence that meters in Great Britain were dispersed by number and age in such a way as to create significant problems of density under an age-based approach. Since this question was firmly in issue following the Supplementary Statement of Objections, if NG had such evidence, the Authority would expect it to have been produced in NG's written and oral responses.

4.176. NG has argued that there is no proper basis to assume that gas suppliers will look to replace older meters first – and argued in the alternative that even if that were true the Authority had actually advised BGT to replace older meters first and this was the basis of BGT's policy[365]. BGT does not believe that any discussion with Ofgem affected or influenced its meter replacement policy based on age[366]. BGT also provided Ofgem with contemporaneous evidence indicating that BGT set its policy without reference to Ofgem's position. In a letter to CML dated 3 December 2003, BGT notified CML of the change in its policy from replacing DCMs over 20 years and PPMs over 10 years. It said:

> 'To this extent British Gas has advised OFGEM that it will not remove any regulated credit meters under the age of 15 years and Prepayment meters under the age of 5 years. This would provide more than adequate volumes

[363] "Society of British Industries, The First Century 1905- 2005, an illustrated history of the Gas Trade Association" by Terry Pinchin, p.49

[364] BGT's response to a request for information on 4 July 2007, dated 13 July 2007, Document 11384, p.2

[365] NG's written representations in response to the Supplementary Statement of Objections issued on 27 April 2007, 10 August 2007, Document 11380, paragraphs 79, 82 and 83.

[366] Section 26 response from BGT, Document 11384.

of meters to maintain the 100% benchmark volumes should any shortfall arise.[367],

4.177. National Grid has also argued that if BGT had been faced with age related PRCs it would have paid over £50m in excess of the payments it has made under the Legacy MSAs. However, this figure is partly based on NG's estimate of age-related PRCs for customer requested exchanges, which as explained above, the Authority does not accept. It also assumes that BGT would have replaced the same meters under a contract that levies age related replacement charges as it has replaced under the early replacement arrangements of the Legacy MSAs. The Authority does not consider this to be a reasonable or plausible assumption. If BGT had entered into a contract with NG on an ***age related basis*** it could have adopted a different pattern of meter replacement than the pattern BGT has chosen since signing the Legacy MSAs. The Authority's analysis above shows that under an age-related approach there would be significant scope for BGT (taking account of access rates and density issues) to make the same levels of replacement at a switching cost substantially below that claimed by NG.

Early replacement charges and replacement incentives

4.178. NG argues that the impact of a difference in the level of PRC payable under an age-related rather than an averaged approach may be unlikely to give rise to materially different replacement rates. In particular, NG claims that the requirement to pay PRCs of any level will affect a supplier's replacement incentives and may be sufficient to deter replacement[368].

4.179. The Authority accepts that a supplier will take into account PRCs whatever their level when assessing its meter replacement plans. However, the differences between the level of early replacement charge that would apply under the legacy MSAs and under an otherwise equivalent age-related approach are substantial relative to the average cost of a new meter and the likely level of savings a supplier could hope to achieve by replacing an NG meter with a cheaper CMO meter.

4.180. NG's analysis of the impact of PRCs on replacement incentives in its written representations implicitly assumed that the potentially available CMO rental charge is wholly independent of replacement decisions. Thus, NG's assessment of this matter ignores the potential for cost savings to result from economies of scale and density. For example, CML's volumes were reduced during the period October 2002 – March 2003, and the price offered by CML increased by just over a £1[369]. NG's analysis also assumes that the benefits from bringing forward meter replacement can be fully captured by a comparison of rental charges. No account is taken of the potential for product/service improvements, including those associated with smart metering.

[367] Letter to D Weir from BGT Document 11384G.

[368] NG's written representations in response to the Supplementary Statement of Objections issued on 27 April 2007, 10 August 2007, Document 11380, paragraph 86.

[369] CML's response to a section 26 request for information, 14th February 2007, document 11325 appendix 4.

Conclusion: Abuse

4.181. NG has abused its dominant position by entering into long-term contracts, the Legacy MSAs and N/R MSAs that contain provisions that limit the commercial benefits that suppliers and customers might reasonably expect to obtain from competition in the relevant market. The Authority has examined the switching costs that arise as a result of the cumulative effects of the ***early replacement charging arrangements*** in the Legacy MSAs. The Authority finds that even though the Legacy MSAs allow some level of annual meter replacement free of early replacement charges through the glidepath (a starting figure of 5.5% for DCMs and 14% for PPMs of opening legacy meter stock which is reduced through meter maintenance leading to replacement and other effects outlined above), the MSAs severely reduce and/or remove the incentive which suppliers have to switch to new entrant CMOs. The cost of replacing even modest numbers of Legacy meters is likely to offset the cost savings which might be attained from switching to a CMO. The Authority also finds that the cost of switching out Legacy meters is significantly higher than the cost of switching equivalent numbers of meters under alternative, less restrictive contractual arrangements.

4.182. Furthermore, irrespective of whether gas suppliers use competitors to replace meters, NG will continue to replace a significant proportion of prepayment meters during maintenance visits. The Legacy MSA and N/R MSAs include maintenance services (which includes the ability to replace meters with a new meter provided under the N/R MSA) with meter provision. The Authority considers that this increases the foreclosing effects of the early replacement charging arrangements and further reduces the portion of the market which is available for CMOs on an ongoing basis. It is not the Authority's view that there is a separate "bundling" abuse or (therefore) that maintenance *necessarily* needs to be separated to bring the abuse to an end. In the absence of other restrictive factors of MSA, the requirement to take maintenance from NG alone would not appreciably restrict competition.

4.183. The Authority has set out the evidence that the MSAs have had an actual constraining effect on suppliers' willingness to rent meters from competitors and, because of the economies of scale and density present in this market, a constraining effect on the savings which can be achieved from switching. The abuse therefore distorts competition by restricting the ability of new entrant CMOs to compete effectively with NG, and, in doing so, reduces the competitive pressures faced by NG. In particular, the MSAs limit and restrict the ability of efficient competitors to enter the market profitably and to expand their businesses in it. The likely effect of this is higher prices, lower quality of service for customers and a significant reduction in the incentives for technical innovation in the provision of domestic-sized gas meters.

4.184. The Authority considers that the contracts have constrained a substantial proportion of the relevant market as all suppliers apart from EDFE have signed the MSAs.

4.185. The Authority does not consider it to be a *per se* abuse to enter into long term contracts for meters which include the potential for charges to be levied on the

replacement of meters. In particular, the Authority recognises that the use of exit charges may be necessary and appropriate to provide for the recovery of ***customer specific sunk costs***, and that the provision of domestic sized gas meters can result in some customer specific sunk costs (given the costs of installation[370], and the fact that the residual value of the meter after it has been removed may be expected to be lower than the purchase cost less rental payments).

4.186. However, the specific charging provisions in the Legacy MSAs that relate to the replacement of meters, and their cumulative effects, do not represent a necessary or proportionate means of addressing this issue. Indeed, the early replacement provisions in the contracts of competing operators, and in NG's own N/R MSAs, are very different in form and likely effects from those in the Legacy MSAs. NG has not provided objective justification for the provisions in the Legacy MSAs or the N/R MSAs.

[370] Which has been the subject of an up-front charge in the case of NG meters installed new since 2000 i.e. Category 2 meters. NG written representations in response to the SSO, dated 6th July 2007, Document 11380 B, Appendix 2, page 7.

5. EFFECT ON TRADE

NG's representations on effect on trade

5.1. NG accepts that the MSAs may affect trade within the United Kingdom but said that the Authority has failed to provide any convincing evidence that the MSAs may affect trade between Member States.[371]

5.2. In relation to the pattern of trade test, NG argued that the Authority has not provided any concrete evidence in support of the proposition that the MSAs currently impede entry by non-UK companies or that there would likely be a greater degree of such entry without the MSAs. NG argues that the matter remains purely "abstract and conjectural".[372]

5.3. In relation to the test relating to the structure of the market, NG said that there is no suggestion of any undertaking that is or risks being eliminated as a result of the MSAs. NG argues that there has been no check on whether there actually are any undertakings who may be interested, in principle, in expanding into Great Britain and no consideration of whether the MSAs have had any impact on their decision making.[373]

Effect on trade in the United Kingdom

5.4. The Authority considers that the MSAs 'may affect trade in the United Kingdom' within the meaning of the Chapter II Prohibition. This is based on the evidence and analysis that has been set out in this document.

Effect on trade between Member States

5.5. Regulation 1/2003[374] requires the Authority to apply Article 82 when applying national competition law to any abuse prohibited by Article 82. Article 82 is limited to conduct which 'may affect trade between Member States.' The test of effect on trade between Member States is a jurisdictional threshold that must be met in order for Article 82 to apply.

5.6. For Community law jurisdiction to be established, the Authority is only required to determine whether NG's conduct is 'capable' of having an effect on inter-state trade. It is not necessary to show that the conduct has already affected or that it will affect inter-state trade.[375] In the case of Article 82 it is the abuse that must affect trade between Member States. This does not imply, however, that each element of the behaviour must be assessed in isolation. Conduct that forms part of an overall strategy pursued by the dominant undertaking must be assessed in terms of its overall impact.

[371] NG's written representations (6th July 2007), Document 11380, Section 6, page 188, paragraph 1.

[372] NG's written representations (6th July 2007), Document 11380, Section 6, page 189, paragraph 4.

[373] NG's written representations (6th July 2007), Document 11380, Section 6, page 190, paragraph 8.

[374] Council Regulation (EC) No 1/2003 on the implementation of the rules of competition laid down in Articles 81 and 82 of the Treaty OJ [2003]L 1/1.

[375] Guidelines on the effect on trade concept contained in Articles 81 and 82 of the Treaty OJ [2004] C 101/81 (the 'Guidelines'), paragraph 26.

5.7. The European Court has developed two tests in order to determine whether there may be an effect on trade between Member States: the pattern of trade test and a test relating to the structure of the market.

5.8. The 'pattern of trade' test is described in the Commission's Guidelines as follows:

> 'It must be possible to foresee with a sufficient degree of probability on the basis of a set of objective factors of law or fact that the agreement or practice may have an influence, direct or indirect, actual or potential, on the pattern of trade between Member States.'[376]

5.9. Since the introduction of competition in 2002, a number of CMOs have entered the market for the provision of domestic sized gas meters. These include CML in 2003. CML is a special purpose vehicle created by Siemens (a company headquartered in Germany) and Macquarie Bank (an Australian Bank) for the purpose of providing gas and electricity meters in Great Britain. It is also common practice for Meter Operators to procure their meters from both UK and global sources (including European companies[377]). In the absence of the foreclosure resulting from the MSAs, there would be increased opportunities for other non-UK companies to enter the British meter market.

5.10. The Authority concludes that it is sufficiently foreseeable that the agreements entered into by NG have had an effect on the pattern of trade of between Member States.

5.11. The Authority also concludes that the Legacy MSAs, by foreclosing the market for meter provision and the ancillary service of maintenance in favour of a dominant undertaking, will by their nature have also affected the competitive structure of the Great Britain market concerned. It is possible to foresee with sufficient certainty that undertakings established in other Member States may be discouraged from seeking to enter the relevant product markets as a result of the foreclosure achieved by the MSAs. Such a situation is neither remote nor hypothetical[378].

5.12. The effect on trade between Member States is 'appreciable'.[379]

5.13. The assessment of appreciability depends to a large degree on the market position of the undertaking concerned. The stronger the market position, the more likely it is that the conduct will be capable of appreciably affecting trade between Member States.[380] The Commission Guidelines state:

[376] Ibid, paragraph 23.

[377] For example, meter operators active in Great Britain procure their gas meters from Elster-Instromet in Germany.

[378] Ibid, paragraph 43.

[379] Ibid, paragraph 13.

[380] Ibid, paragraph 45.

> 'Any abuse which makes it more difficult to enter the national market should therefore be considered to appreciably affect trade. The combination of the market position of the dominant undertaking and the anti-competitive nature of its conduct implies that such abuses have normally by their nature an appreciable effect on trade.[381]'

5.14. NG's very strong market position in the relevant market is clear. The abuse covers the whole of Great Britain, which is a substantial part of the common market, and makes it more difficult for competitors to enter the relevant market, which is large in value terms: over £270m per annum; the NG metering business, excluding meter reading, generated a turnover of some £274m[382] for the financial year 2006/07.

5.15. The Authority therefore concludes that the abuse identified in Chapter 4 had an effect on trade (actual or potential, direct or indirect) between Member States of sufficient appreciability for the purposes of Article 82 EC.

[381] Ibid, paragraph 96.

[382] NG response to section 26 notice dated 24 July 2007, Document 11394A, page 10.

6. DIRECTIONS AND PENALTY

Directions

6.1. Section 33(1) of the Act provides that if the Authority has made a decision that conduct infringes the Chapter II prohibition, it may give to such person or persons such directions as it considers appropriate to bring the infringement to an end.

6.2. In the *Napp* case, the CAT upheld the OFT's directions to cease the abusive conduct and to refrain from conduct having the same or equivalent effect, and stated that this type of direction was similar to directions given by the Commission. The CAT also held that Section 33(1) permits the imposition of directions that are "reasonably ancillary"[383] for the purpose of putting the infringement to an end. This was said to include the OFT's information requirements relating to Napp's compliance with the directions.

6.3. The Authority has found that NG has abused its dominant position by engaging in exclusionary conduct that has restricted and continues to restrict the development of competition in the relevant market, contrary to the Chapter II prohibition and Article 82 of the EC Treaty.

6.4. In order to bring this infringement to an end, the Authority considers that it is appropriate to Impose the following directions:

(a) NG shall put an end to the infringement identified in this decision;

(b) NG shall refrain from engaging in conduct capable of having the same or equivalent exclusionary effect as the conduct that the Authority has found abusive;

6.5. NG shall as soon as reasonably practicable, but in any case within ninety (90) days of the date of this decision, communicate to the Authority all the measures that it has taken under points a) and b) in sufficient detail to enable the Authority to assess NG's compliance with this decision and these directions.

Penalty

6.6. Section 36(2) of the Act provides that, on making a decision that conduct has infringed the Chapter II prohibition, the Authority may require the undertaking concerned to pay a penalty in respect of the infringement. The 'undertaking concerned' comprises those legal bodies forming a single economic entity, namely (in this case) those entities falling under the ultimate control of the parent company of the NG group. Any penalty which has been fixed may not exceed 10 per cent of the turnover of the undertaking concerned, calculated in accordance with the provisions of the Competition Act (Determination of Turnover for Penalties Order) 2000.

6.7. Section 36(3) of the Act (and Article 23(2) of EC Regulation 1/2003) provides that the Authority may impose a penalty on an undertaking which has infringed the

[383] *Napp Pharmaceutical v Director General of Fair Trading* [2002] CAT 1, paragraph 553.

Chapter II prohibition only if it is satisfied that the infringement has been committed intentionally or negligently.

NG's intent and/or negligence

6.8. If an undertaking ought to have known that its conduct would restrict or distort competition, it may be found to have committed an infringement *negligently*[384]. On the available evidence and on the basis of reasonable inferences, the Authority has found that NG ought to have known that the MSAs would have the actual or likely effect of foreclosing the relevant market and that it has therefore abused its dominant position negligently, rather than intentionally.

6.9. There is no novelty in the Authority's finding that NG abused its dominant position. An undertaking in NG's position, with its very high market share and its considerable resources, should have known (even if NG did not in fact know) that its conduct infringed Chapter II of the Act and Article 82 EC.

6.10. NG recognised at the time that the MSAs were signed that it might be found to hold a dominant position within the market and, as such, had to pay particular attention to ensuring compliance with the requirements of competition law. NG claims that it observed procedures "for ventilating possible lines of attack against its own proposals, precisely in order that [it] could be satisfied that those proposals were robust."[385] NG states that those procedures were maintained in particular via its regulation department and included the adoption by NG's Distribution Regulation Manager, *[excised],* of the role of 'devil's advocate'.

6.11. NG kept a "risk log" which included consideration of competition law issues. *[Excised]* identified the competition law risk arising from the proposed MSAs when he wrote of a Board sub-group paper of 10 December 2003[386]:

> 'On the risks section of the paper I think that it is importation [sic] to highlight the regulatory risks. We are a dominant provider, foreclosing the market by offering a commercial contract, complete with a generous incentive payment, with which no one could possibly compete (this is how is [sic] could be seen rather than how we present it). This is bound to attract complaints from disadvantaged MOs and is likely to trigger an Ofgem investigation. Although we believe we have covered all the angles and could defend the contract, it is still conceivable that Ofgem could develop a case against us. I therefore think it is important that the Board Sub-group is made aware that there is a Competition Act/Regulatory risk with the contract, which is more a function of our dominance than anything else.'

6.12. The NG Board sub-group paper of 10 December 2003 stated[387]:

> 'These are long term contracts relating to assets in a market in which NGT is currently the dominant player. As such they may be subject to regulatory scrutiny and could be challenged under either Transco's licence or the Competition Act. Steps have been taken to ensure that the contracts are

[384] *Napp*, paragraph 457.

[385] NG's Written Response to the Statement of Objections issued by the Authority, Document 11231, page 111, paragraph 384.

[386] NG internal email, 4 December 2003, Document 734, page 2.

[387] Final paper to NG Board sub group, 8 December 2003, Document 2650, page 2.

> compliant with both licence and the Act but there will remain a risk of investigation. A Transco nominee will be appointed to audit the operation of the contract to ensure that the competition and regulatory risks are managed on an ongoing basis.'

6.13. Moreover, gas suppliers highlighted to NG the risk that the MSAs could foreclose the market. They explicitly raised concerns about the duration of the MSAs and their compatibility with the Act. Powergen noted with regard to the Legacy MSA that:

> 'The Contract Period of 18 years is causing some concern, is there any scope for movement towards a break at say 5-7 yrs? No one has any idea how the market will look in 5 years time so a clause that could offer both parties a chance to review would be beneficial for all concerned.'[388]

6.14. RWE npower expressed concern to NG that the "[t]ermination payments could be excessive under the CA98" and that the termination payments were such that "we may be deterred from terminating the contract within the 18 year period"[389]. In November 2002, in the course of its negotiations with NG, BGT asked for a break clause and noted that the two main reasons for exiting the contract would be "further reductions in the cost of new meters" and "to deploy new metering technology"[390].

> NG itself noted that EDF Energy, Powergen and SSE were all "very nervous about an 18 year contract" while RWE npower had raised the issue of "Competition Act concerns re the level of PRCs" and were "[c]oncerned that PRCs should do no more than compensate for any loss - Competition Act issue."[391]

Tacit approval by the Authority of the MSAs

6.15. NG argues that it had 'no anti-competitive intent whatsoever'[392] and that, in fact, the Authority had given its 'tacit approval' to the MSAs. NG relies on the statement that: "An undertaking is not guilty of intentional or negligent behaviour if it reasonably relies on views communicated to it by the regulator to suggest that the Authority cannot impose a financial penalty on NG even if it finds NG in breach of the Act,."[393]

6.16. In considering NG's representations on this point, the Authority has taken the view that important caveats must attach to that principle if a legitimate expectation is to be found to have been given. These are:

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[388] Email from Powergen to NG, subject 'Some queries on the deal' dated 6 February 2004, Document 3064, page 1.

[389] Paper provided by RWE npower to NG entitled 'issues re [National Grid] legacy meter agreement' attached to an email from RWE npower to NG dated 12 August 2003, Document 2168, page 4.

[390] Attachment to an internal BGT email subject 'Legacy Contract- Break Option and Alternative Strategy', dated 22 November 2002, Document 6421, page 5.

[391] Internal NG paper titled 'Jam shipper summary' attached to an internal email dated 21 January 2004, Document 2999, pages 1 and 3.

[392] NG's Written Response to Ofgem's Statement of Objections issued on 17 May 2006, 10 August 2006, Document 11231, paragraph 379.

[393] European Community Law Competition, Bellamy & Child, 5th edition, Sweet & Maxwell, 2001, page 934, paragraph 12-084.

(1) the regulator must have received a full and frank disclosure of the facts from the undertaking concerned; and

(2) the regulator must have made a representation which was clear, unambiguous and devoid of relevant qualification.

6.17. The Authority notes (and NG accepts[394]) that NG did not seek formal clearance (pursuant to section 14 of the Act[395]) or formal guidance (pursuant to section 21 of the Act) in relation to the MSAs and the question whether they were compatible with the Act or the EC Treaty.

6.18. NG was (or should have been) aware of these procedures. The evidence suggests that NG was aware as NG has made a request to Ofgem for formal approval of an agreement on at least one occasion since the introduction of the MSAs[396].

6.19. However, NG has argued that it considered that Ofgem had given 'tacit' approval of the principles behind the MSAs[397] over a series of five meetings which took place on 9 August 2002, 4 September 2002, 9 October 2002, 16 December 2002 and 18 February 2003 (collectively described by NG as 'the engagement process'[398]). NG's argument is based upon five separate allegations regarding Ofgem's involvement in the development of the MSAs. Specifically, NG alleges that:

(1) the Authority acknowledged the legitimacy of using PRCs in a competitive market in two public documents[399];

(2) the PRCs were suggested to NG by the Authority in the course of a meeting which took place on 28 June 2002[400] as a legitimate way of mitigating the stranding risk on Legacy meters;

(3) NG's proposals regarding the PRCs were discussed openly and frankly with Ofgem over a number of meetings between August 2002 and February 2003, that the Authority's acceptance of the core principles was clear as a result of those meetings and that NG's expectation was that the Authority would have raised objections, had it taken the view that the PRCs were not compliant with the requirements of the Act;

(4) the Authority was given copies of the MSAs, both by NG as part of the Authority's approval of NG's charging statement in late 2003[401] and by

[394] NG's response to question 3 of the s 26 Notice dated 22 November 2006, Document 11244, page 11.

[395] Prior to the amendments introduced by SI 2004/1261, which included repeal of sections 14 and 21 of the Act.

[396] In March 2004, NG contacted Ofgem regarding discussions which Onstream sought to initiate with a number of other gas and electricity metering companies (e.g. Siemens, npower) for the purpose of developing an agreement regarding the practical steps needed to develop the competitive metering framework. It requested comfort from Ofgem that such an agreement 'is not caught by the Competition Act, or that it is otherwise pro-competitive and should therefore be exempted.', Document 11281.

[397] NG's Written Response to the Statement of Objections of 17 May 2006, 10 August 2006, Document 11231, Appendix 2 and NG's response to question 3 of the s 26 Notice dated 22 November 2006, Document 11244, page 11.

[398] NG's oral representations in response to the Statement of Objections dated 17 May 2006, Document 11243, slide 7.

[399] NG's Written Response to the Statement of Objections, 10 August 2006, Document 11231, paragraph 46 and Ofgem's Strategy for Metering, a Consultation Paper, March 2001, Document 10868.

[400] NG's Written Response to the Statement of Objections, 10 August 2006, Document 11231, paragraph 47.

[401] Internal NG email, 3 September 2003, Document 2254, page 1 in which Ofgem told NG they had a copy of the draft contracts. Draft copy of charging statement sent 16 September 2003, Document 2324.

BGT on 12 August 2003[402] in respect of an unrelated regulatory matter of the treatment of metering business rates; and

(5) two of the gas suppliers who signed the MSAs - Powergen and SSE - considered that the MSAs had been approved by the Authority.

6.20. The Authority did not give tacit approval to the MSAs and does not, therefore, accept that it cannot impose a financial penalty. It is the undertaking's responsibility to assess whether its conduct infringes competition law.

6.21. The remainder of this section sets out the relevant case law and then describes why the Authority has concluded that NG could not reasonably rely on views communicated to it by Ofgem. The evidence shows that there was not a full and frank disclosure and/or an unambiguous statement from Ofgem in relation to the MSAs. The Authority then addresses the five other points made by NG.

Relevant case law

6.22. In a Commission case on steel products[403], in which the undertaking argued that they had made Commission officials aware of the unlawful agreement and had legitimate expectations that their agreement was lawful, the Commission noted:

> 'No statement had been made by anyone in the Commission that the agreements in question were consistent with competition law (..) Even if, as argued by the companies, certain Commission officials were aware of the Agreement, this could not make the Agreement lawful: only a Commission decision based on a formal application for authorization could have done that. The companies remained responsible for their own actions and for ensuring that the correct precautions were taken to protect themselves from fines if there was a risk of fines, as there plainly was.'

6.23. The CFI upheld the Commission's decision to impose penalties, stating[404]:

> 'The Court concludes from all of the foregoing that, from 1988 on, the steel undertakings and their trade association Eurofer submitted to the Commission relatively general and imprecise information… Had the undertakings had the slightest doubt as to whether their conduct was lawful, they should have contacted DG IV in order to clarify the situation… The letter of 8 February 1983 from the chairman of Eurofer to [Commissioner] Davignon clearly cannot free them from their responsibility for conduct dating from a different period… Nor can that letter impose on the Commission an implicit obligation to react immediately to the slightest suspicion of anti-competitive conduct.'

Full and frank disclosure of the facts

6.24. The facts demonstrate that there was not 'full and frank' disclosure in relation to the MSAs. The dialogue between Ofgem and NG was undertaken in a regulatory context and concerned a prospective Network Code modification (Chapter 2 has the full details and chronology). None of the dialogue was conducted within the context

[402] Email from BGT to Ofgem, 12 August 2003, Document 6551 and attachment.

[403] Commission Decision 90/417/ECSC OJ L220, 18 July 1990, 15/08/1990 pages 28-41, paragraph 11 (ii) and paragraph 12.

[404] Case T-141/94 *Thyssen Stahl v Commission* [1999] ECR II-347, paragraphs 552-556.

of seeking clearance or guidance under the Act and no clearance or guidance was given.

6.25. The Authority does not accept NG's description of the dialogue with Ofgem. The evidence shows that NG did not disclose certain material and important details relating to the MSAs and NG's proposals. In March 2002, it entered into a confidentiality agreement with BGT that prevented BGT and NG from discussing the agreements with anyone else including Ofgem[405]. In July 2003, NG noted that, in speaking to Ofgem about the MSAs, BGT had "potentially breached our confidentiality agreement" and NG sought to police BGT's compliance with this agreement thereafter.

6.26. In August 2002, internal email correspondence by NG's senior management stated:

> '…we probably don't want to talk about our methodology until the general principles of the proposal are agreed/accepted. In this context, the original numbers sent were meant to be illustrative, to aid the discussion. The rest of this note… indicates the relative drawbacks of revealing the details of our method… I don't advocate explaining our method at this stage - it seems that we may reveal information we may in the future regret - and what is important is the deal principles…'[406].

6.27. NG did not make clear to Ofgem that the MSAs consisted of two contracts, one relating to Legacy meters and the other to N/R meters. Nor did the NG disclose the full details of the methodology for calculating the PRCs.

6.28. NG did not highlight to Ofgem the point at which it abandoned that approach and decided instead to adopt PRCs that did not vary with the age of the meter.

6.29. NG did not make Ofgem aware of other key features of the MSAs such as up-front payments and policy replacement arrangements, the duration (including any interaction between the Legacy and N/R MSAs if both signed) and the fact that the MSAs were a "once and only election such that the P&M arrangements would no longer be a realistic possibility for counterparties"[407]. During the course of the "engagement" process, only certain aspects of the proposals were set out in slide presentations. The final contracts were in fact signed by BGT and the majority of gas suppliers in 2004, some ten months to a year after the end of the so-called engagement process with Ofgem.

Representation 'clear, unambiguous and devoid of relevant qualification'

6.30. The Authority did not give clear and unambiguous approval to NG relating to the MSAs or indeed any kind of approval. On the contrary, it was made explicit (and in the context of discussions about regulatory issues this was to avoid any doubt) that National Grid needed to ensure compliance with competition law.

6.31. The dialogue between Ofgem and NG took place in a regulatory context, rather than in the context (explicit or implicit) of Ofgem's competition powers under the

[405] Confidentiality Agreement between British Gas Limited and Transco plc, March 2002, Document 4057.

[406] NG internal email, 20 August 2002, Document 440, page 1 and 2.

[407] Response to a request for information, 11 April 2007, Document 11364, page 4, paragraph 8.

Act[408]. NG's proposal which was the subject of the initial discussions concerned the possibility of introducing a modification to the Network Code. The aim of the modification was the introduction of exit charges that would be payable by shippers and gas suppliers if they "prematurely" removed meters which were still in good working order.

6.32. On 2 September 2002, a letter from Ofgem to NG stated:

> 'As I indicated at the meeting, if Transco were to raise a formal Network Code modification along these lines, then we would of course have to look in detail at the proposal and consider carefully any representations from shippers. We might also wish to consult other meter operators/ manufacturers. Any comments we make now are therefore provisional and without prejudice to our final decision on the modification. Transco should also ensure that it has considered potential Competition Act issues'[409] (emphasis added).

6.33. Ofgem's approach was reiterated two days later at the meeting of 4 September, as recorded in NG's meeting note:

> 'as a matter of fact that any approval [Ofgem] issued in respect of a modification would be under its relevant powers and would not stretch to Competition Act concerns (unless they were forcibly expressed in any [Network Modification] consultation responses). As a result any modification might still be determined to operate against the public interest on competition grounds in the future'[410] (emphasis added).

6.34. The context of the discussions was explicitly regulatory in nature. The Authority repeatedly stressed, both orally and in writing, the potential for infringement of competition law presented by the proposals relating to PRCs and the need for NG to take its own advice and satisfy itself that its proposals were compatible with its competition law obligations.

6.35. At the meeting to discuss the proposal on 9 August 2002, Ofgem expressed concerns over the potential competition issues which might arise in relation to the charges and, in particular, whether the application of the charges could be time limited or whether Ofgem, having approved the Network Code modification, could rely on its powers under the Act if the charges were to become a barrier to the development of the market, once their short-term objective of stopping uneconomic meter replacement had been achieved[411].

6.36. It was made clear to NG, both in writing and during the course of the meetings of 9 October and 16 December 2002, that, for Ofgem to agree to the proposal, NG would have to show that the PRCs would provide a clear net benefit to customers

[408] As noted above, there was at the time a formal notification process for agreements under Article 81. While there was never any notification process for potential abuse of dominance issues, even if NG had taken the view that it was dominant this would not have prevented notification of the agreements. Indeed, there was high profile authority relating to ice cream freezer exclusivity (Commission Decision 98/531/EC of 11 March 1998 relating to a proceeding under Articles 85 and 86 of the EC Treaty [now 81 and 82 EC] (Case Nos IV/34.073, IV/34.395 and IV/35.436 - Van den Bergh Foods Ltd) suggesting immunity from penalty following notification, even in the case of abuse of dominance.

[409] Letter from Ofgem to NG, 2 September 2002, Document 469, page 1.

[410] NG notes of a meeting between Ofgem and NG, 4 September 2002, Document 491, page 1.

[411] NG notes of a meeting between Ofgem and NG, 9 August 2002, Document 425, page 1.

and that they would not create barriers to the development of competition and customer benefits in the future[412]. Ofgem also informed NG that it would continue to look at the proposal but would not support a proposal which was substantially concerned with addressing NG's concerns over potential asset stranding risk[413].

6.37. Ofgem also continued to stress that, before any formal decision could be taken on any modification, more detail would be required about the proposed PRCs, and that there would need to be a process of industry consultation before any final decision could be taken[414].

6.38. At a meeting on 4 September 2002 between NG and Ofgem, NG reported that the gas shippers they had spoken to had been supportive of the proposed PRCs and the associated reduction in rental charges. Again, Ofgem expressed the view that such an arrangement might still prove harmful to competition[415]. It was at that meeting that NG raised the possibility that the proposal in respect of the PRCs might form the basis for commercial, bilateral contracts, offered as an alternative to the regulated tariff, rather than through a Network Code modification[416].

6.39. It is apparent from the evidence on the file that NG was aware that the Legacy MSA could raise competition law compliance risks and of the possibility of seeking formal guidance from Ofgem under the Act. In November 2002, in an internal presentation NG stated that it was:

> 'looking for Ofgem to… provide formal guidance on Competition Act (chapter II prohibition)…'.[417]

6.40. However, NG has accepted, as outlined above, that it did not seek formal guidance from Ofgem at any stage (see paragraph 6.17, above). NG has not presented any evidence to support its claim[418] that, by 18 February 2003, Ofgem had agreed the core principles of its proposal.

6.41. Although Ofgem did not expressly object to the principle of PRCs as proposed by NG in a regulatory context (though even then, concern was expressed by Ofgem about the duration of the arrangements) Ofgem made clear that it was not expressing a final (or even interim) position on the point. In February 2003, it stated:

> 'Since this development [of the appropriate level of the meter charge] is to be pursued by commercial negotiation Ofgem has no views on the appropriate level of charge provided in setting its charges terms and conditions Transco is compliant with its obligations under licence and, more generally, competition and customer law.'[419]

[412] Letter from Ofgem to NG, 11 October 2002, Document 586, page 1.

[413] Ibid and letter from Ofgem to NG, 2 September 2002, Document 469.

[414] Ibid.

[415] NG's note of a meeting between Ofgem and NG, 16 December 2002, Document 795.

[416] NG's note of a meeting between Ofgem and NG, 16 December 2002, Document 795.

[417] Internal NG presentation on metering strategy, 26 November 2002, Document 706, page 4.

[418] NG's written response to the Statement of Objections dated 17 May 2006, 10 August 2006, Document 11231, Appendix 2, paragraph 8.

[419] Letter from Ofgem to NG, 18 February 2003, Document 956, page 1.

6.42. Although Ofgem did not explicitly reject the proposals this cannot equate to approval, and certainly not "unambiguous approval."

The Authority has never acknowledged the legitimacy of the PRCs

6.43. NG's arguments that the Authority acknowledged the legitimacy of PRCs and suggested the use of PRCs appear to be raised as a result of NG's misunderstanding that the Authority considered PRCs to be ***per-se*** abusive. This was not and is not the Authority's position. The Authority therefore deals with the detail of NG's arguments in Annex 8.

NG did not discuss the PRCs 'openly and frankly' with Ofgem[420]

6.44. NG argues that, during the engagement process: 'information was shared freely: nothing was held back; NG explained and debated fully the principles of the agreements; NG explained the detail of premature replacement charges…'[421].

6.45. The Authority does not consider this to be the case. NG did not disclose certain material and important details of the MSAs and NG's proposals to Ofgem.

The Authority was not provided with copies of the MSAs for the purpose of obtaining competition law clearance

6.46. It is correct as a matter of fact that a member of Ofgem staff was provided by email with copies of the draft MSAs before they were signed. However, it is important to understand Ofgem's reason for obtaining the MSAs at that stage, and the limited nature of its interest.

6.47. At the 16 December 2002 meeting, NG informed Ofgem of its proposed prices if the PRCs were permitted. These combined a small genuine price reduction with a price reduction reflecting the proposed transfer of metering business rates to its transportation business, which was the subject of separate discussions between NG and Ofgem. Ofgem was concerned that, in negotiating with suppliers, NG may not have been making this clear. At the 16 December 2002 meeting, NG said that it had made the position clear.

6.48. Subsequently, Ofgem consulted on the timing of the transfer and one confidential respondent raised concerns about the proposals (for the avoidance of doubt, not relating to competition law concerns). Ofgem became concerned that NG was unfairly profiting from its privileged information about the timing of the likely future transfer of business rates. Ofgem was concerned that suppliers might be misled into thinking they were obtaining a substantial reduction in price in consideration for signing the MSAs, when in fact a large proportion of that reduction was going to occur even if the MSAs were not signed and therefore requested a draft copy of the MSA by email[422]. Ofgem requested a copy of the MSA in order to establish whether

[420] NG's Written Response to the Statement of Objections dated 17 May 2006, 10 August 2006, Document 11231, paragraph 386.

[421] NG's oral representations in response to the Statement of Objections dated 17 May 2006, Document 11243, slide 8.

[422] Email from Ofgem to NG, 1 August 2003, Document 6549, page 4.

the negotiations with the suppliers were advanced to the point where no changes could be made to address the possible unfair advantage obtained by NG.

6.49. NG provided Ofgem with a draft MSA to deal with that specific concern and for no broader purpose. NG responded by sending the contract as an attachment to an email dated 11 August 2003 which refers to "highlighting the Schedule Part 4 – Adjustments to Prices – Business Rates"[423]. Ofgem did not ask for a copy of the MSAs for any wider purpose and there was no analysis or discussion relating to the PRCs or any wider consideration of whether the MSAs were compliant with the Act.

6.50. NG sent the MSAs to Ofgem again in December 2003. On this occasion, the purpose was for Ofgem to approve the form of NG's charging methodology in accordance with its licence obligations[424]. As a matter of fact, Ofgem staff did not review the MSAs in detail, or make an assessment of them for the purposes of competition law. Further, Ofgem made no communication with NG that could have inadvertently given this impression.

6.51. The Authority does not, therefore, accept NG's claim that Ofgem was fully aware of the details and effects of the proposed contracts. The contracts are highly complex legal documents and the sole purpose of receiving copies of the contract was to clarify the situation in respect of the transfer of metering business rates and the approval of NG's charging methodology. The MSAs were not provided by NG with a view to seeking Ofgem's guidance on the application of the Act or the competition rules of the EC Treaty, and no such guidance was given.

6.52. The Authority also notes that NG's representations on the issue of approval/implicit approval were not made early in the investigation. For example, they could have been made following notification of the start of the investigation in early 2005, or following a number of section 26 notices which referred to the scope of the investigation (and which required NG to provide voluminous documentation – over 4,000 documents before the first Statement of Objections). NG is of course entitled to wait to respond on any issue until after receipt of a Statement of Objections. But if NG had believed that Ofgem had approved the MSAs in any form that gave them legal comfort (and certainly in terms of their representations), The Authority would have expected this to have been put to the case team as soon as possible to avoid the costs and time involved in a lengthy investigation.

NG's claim that two suppliers discussed the MSAs with the Authority

6.53. NG also states that two gas suppliers (Powergen and SSE) contacted the Authority with a view to ascertaining whether the Authority considered that the MSAs were restrictive of competition. NG argues that the terms of the MSAs were therefore known to the Authority and had been approved.

6.54. This claim is unfounded.

[423] Email from Ofgem to NG 1 August 2003, Document 6549, page 4.

[424] NG internal email 8 December 2003, Document 2655.

6.55. In a response to a request for information, SSE states that it was NG who told SSE that Ofgem had approved the contract[425]. In respect of Powergen, as Powergen recognises itself, there is no evidence that Ofgem approved the MSAs[426]. The handwritten note to which Powergen refers gives no indication that Powergen had contacted Ofgem or, if it had, the content of any discussions. The note merely confirms that NG came to Ofgem but does not suggest that any consent was given[427]. There is no evidence to support NG's argument that the Authority knew or approved the detailed provisions of the MSAs.

Level of penalty

6.56. In determining whether a penalty is appropriate and at what level, the Authority has, in accordance with Section 38(8) of the Act, had regard to the guidance on penalties issued by the OFT[428] under Section 38(1) of the Act ('the Penalties Guidance').

6.57. The Penalties Guidance provides for the following five-step approach to the setting of any fines for breach of the competition rules:

(1) calculation of the starting point having regard to the seriousness of the infringement and the relevant turnover of the undertaking;

(2) adjustment for duration;

(3) adjustment for other factors;

(4) adjustment for further aggravating or mitigating factors; and

(5) adjustment if the maximum penalty of the 10 per cent of the worldwide turnover of the undertaking is exceeded and to avoid double jeopardy.

6.58. As regards the first step, it is relevant that the abuse took place at the time of the opening up of the market to competition, and has had an actual effect on competition (and thereby at least a likely effect on customers).

6.59. The Authority has considered NG's written and oral representations in response to the initial Statement of Objections of 17 May 2006, its written and oral representations in response to the Supplementary Statement of Objections of 27 April 2007 and its response to the material put back to it in letters of 17 October 2007 and 23 January 2008 The Authority remains of the view that the infringement is serious. But in the light of these representations and in particular the new data that NG produced on the age distribution of its legacy meters, the Authority has concluded that the economic effects of the infringement, while still substantial, are less serious than it thought at the time the SSO was published. The Authority considers the appropriate starting point in this case to be four per cent of the relevant turnover. In reaching this view, the Authority has also had regard to the fact that even though NG's actions have foreclosed the market, the metering

[425] Response to a section 26 information request issued on 1 August 2005, Document 4742, page 1 and Response to a section 26 information request issued on 15 January 2007, 22 January 2007, Document 11254.

[426] EON's response to a section 26 information request, 3 October 2005, Document 6008, page 6.

[427] EON's typed version of a handwritten note of a telephone conversation with Ofgem Document 6084, 22 January 2007, Document 11255.

[428] OFT's guidance as to the appropriate amount of a penalty (OFT 423).

market has specific features that will have reduced the impact on customers and competition. Specifically, the Authority is mindful that the practical logistics associated with procuring and installing meters limit the effects of NG's conduct compared with foreclosure of other markets (such as customer goods) where competitors can enter and expand their market share very rapidly.

6.60. The maximum possible fine is calculated with reference to the worldwide turnover of NG in the last financial year. NG had a group-wide turnover of £8,695m[429] for the financial year 2006/07, which means the highest possible penalty would be £869.5million. In accordance with the OFT guidance, the Authority regards the turnover of NG's domestic-sized gas metering business as the relevant turnover given the context of this case; NG's relevant turnover in this case is approximately £260 million per annum[430]. Four per cent of the turnover of the relevant business is £10.4 million, and the Authority takes this as the starting point for the calculation of the penalty.

6.61. Regarding the second step, the Authority has taken the date at which the first of the MSAs was entered into as the relevant date of commencement of the infringement. The Authority considers it appropriate to use the date of the first agreement (with BGT) as that is the point at which the breach first occurred. The Authority notes, however, that even those contracts which were signed later (within the few months following January 2004) are "deemed" to have commenced on 1 January 2004 (by operation of the definition of Contract Start Date and the backdating of rental savings to this date in the form of a "one-off" payment). Since the duration of the abuse is greater than one year, the number of years during which the abuse continued may be used as a multiplier. Part years may be treated as full years for the purpose of calculating the number of years of the infringement. In this case the Authority does not consider it appropriate to include the short period of time since January 2008. The appropriate multiplier in this case is therefore four. The starting figure, £10.4 million, multiplied by four is £41.6 million.

6.62. Regarding the third step, the Authority considers that it would not be appropriate or necessary to increase the level of the penalty to act as a deterrent.

6.63. Regarding the fourth step, the Authority considers that there are potential aggravating and potential mitigating factors in this case but that, on balance, none are sufficiently serious to be taken into account in calculating the penalty.

6.64. As regards *potential* aggravating factors the Authority has noted that despite being aware of its dominant position and the risks posed in entering into the MSAs, NG did not seek formal guidance from the Authority on the MSAs, a course which was available to NG at the time. A second potential aggravating factor is NG's threat of withdrawal of the UMS offer to BGT unless BGT signed the Legacy MSA and the use

[429] This turnover figure is for continuing operations and has been taken from National Grid Transco Annual Report and Accounts 2006/07.

[430] Response to a section 26 information request dated 24 July 2007, Document 11394A, page 10, question 9. This turnover figure relates to the financial year ending 31 March 2007. The Authority has erred on the side of caution in identifying turnover for the purposes of identifying a starting point in accordance with the Penalties Guidance. It has discounted £14.7 million for "Meter Works" (at least some of which arguably falls outside the relevant market). That figure itself involves an arguably generous estimate of UMS's Meterworks turnover.

of an incentive (in the form of lump sum payment on signing the contract) to every signatory to the MSAs who signed before a date specified by NG.

6.65. In *potential* mitigation, the Authority recognises that NG had taken positive steps to facilitate the introduction of competition in the domestic gas metering market at its own expense such as the IT systems and processes developed as part of the RGMA process.

6.66. The Authority has also considered all of NG's representations including the steps that NG had put in place to try to ensure compliance with competition law and their statements about a lack of any intent on NG's part. However, NG is one of largest companies in the United Kingdom with considerable resources. And NG has not presented us with any evidence to suggest that they took any external advice from organisations or experts of similar standing to those they have now engaged to advise them under this investigation prior to entering into the contracts, despite the significant financial value of the contracts, the duration of the contracts and the risk that NG identified that these contracts could pose under competition law.

6.67. On balance, the Authority has concluded that there are both *potential* mitigating and aggravating factors but that none are sufficiently serious to be taken into account in calculating the penalty and that none of them are sufficient to outweigh the others to justify any further increase or decrease to the level of penalty.

6.68. The fifth step does not apply in this case.

6.69. Having assessed all the relevant considerations, the Authority imposes on NG a financial penalty of £41.6 million.

6.70. This penalty shall be paid within ninety (90) days of the date of this Decision.

FOR THESE REASONS, THE AUTHORITY:

1. Finds that, contrary to Chapter II of the Competition Act 1998 and Article 82 of the EC Treaty, NG has abused its dominant position in the market in Great Britain for the provision of domestic-sized gas meters by including in the long-term meter supply arrangements (the MSAs) the Take or Pay charges and the Premature Replacement Charges;

2. Orders that NG put an end to the infringement identified in paragraph 1 above;

3. Orders that NG shall refrain from engaging in conduct having the same or equivalent exclusionary effect as the infringement identified in paragraph 1 above;

4. Orders that NG shall as soon as reasonably practicable, but in any case within ninety (90) days of the date of this decision, communicate to the Authority all the measures that it has taken under paragraphs 2 and 3 in sufficient detail to enable the Authority to assess NG's effective compliance with this decision, including these directions;

5. Imposes on NG a penalty of £41.6 million in respect of the infringement identified in paragraph 1 above; and

6. Orders that the penalty identified in paragraph 5 above shall be paid within ninety (90) days of notification of this decision.

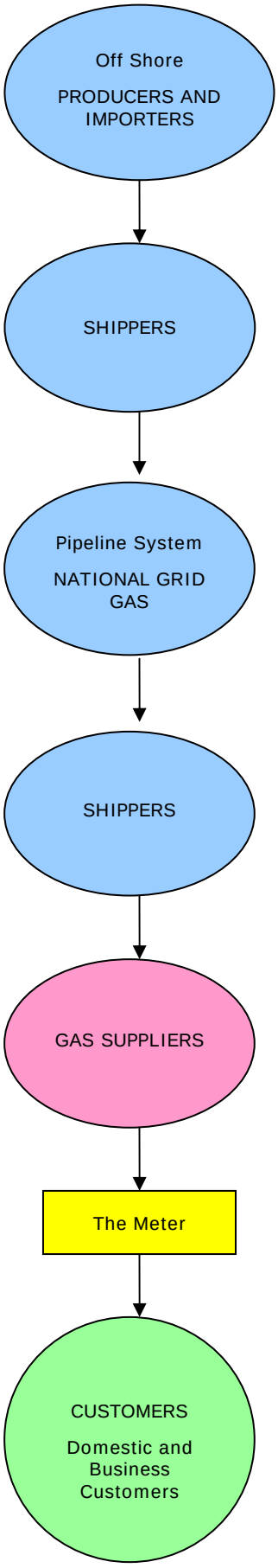
Steve Smith, for and on behalf of:

The Gas and Electricity Markets Authority

9 Millbank

London SW1P 3GE

ANNEX 1: OVERVIEW OF THE NATURAL GAS SUPPLY CHAIN



Companies that bring gas onshore from North Sea offshore gas fields, through interconnector pipelines with other countries and Liquified Natural Gas terminals.

Shippers buy gas from North Sea producers and importers – or inject or withdraw gas from offshore/onshore gas storage facilities - and sell gas to suppliers. They pay NG and other transporters to transport gas along the pipeline system.

NGG is the monopoly transporter of gas on the National Transmission System (NTS)[1]. Gas is transported on the local distribution zones by a number of companies including NGG. NGG keeps the NTS in balance by buying and selling gas and using stored gas to ensure that there is sufficient gas in the pipeline system.

Shippers trade capacity and gas to ensure there is sufficient gas in the system to supply their customers the gas suppliers. Shippers must inform NGG of their estimated flows onto the network and their demand for gas approximately every 4 hours.

Licensed suppliers buy gas from shippers and sell to customers. A supplier may also be a licensed shipper. Suppliers bill customers for the gas they use.

The meter measures and records the customer's use of gas. Suppliers read customer meters at different frequencies ranging from monthly to 6 monthly.

[1] The NTS is the high pressure gas pipeline via which National Grid Gas transports gas from entry points to the local gas distribution systems. The gas leaves the NTS through a number of exit points and flows via the local distribution networks (DNs) that are owned by National Grid Gas plc, Scotia Gas Networks, Northern Gas Networks and Wales and West Utilities. There are also a number of small independent gas transporters (IGTs) operating in local areas.

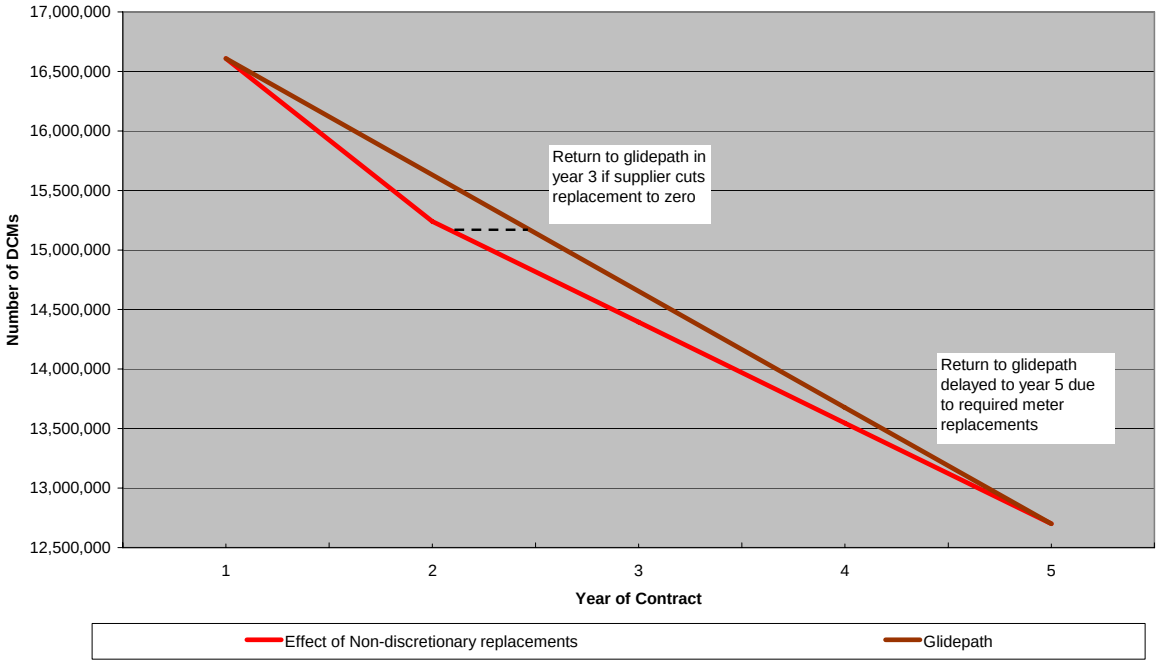
ANNEX 2: CALCULATION AND ILLUSTRATION OF THE CONSTRAINT ON SUPPLIERS IN EXITING THE TAKE OR PAY ZONE

1. This Annex sets out the Authority's reasoning behind the statement in Chapter 4 that suppliers are constrained in exiting the Take or Pay Zone even if they replace only a small percentage of meters in excess of the glidepath allowance.

2. The number of non-discretionary DCM meter exchanges (i.e. those subject to policy replacement, "maintenance" replacement and functionality changes) totalled around 850,000 in each of 2004, 2005 and 2006. This is equivalent to around 87% of the annual replacement allowance provided for by the glidepath. This means that in any of those years, suppliers had discretion over which meters to replace for only around 130,000 meters within the much larger glidepath allowance. If, in any of those years, suppliers between them replaced more than 130,000 meters above the glidepath limit (or less than 1% of the opening legacy DCM stock of over 15 million meters), it would have taken them more than a year to return to the glidepath allowance. That is, they would have had to undertake a minimum of 850,000 non-discretionary meter replacements, and this would constrain their ability to return to the glidepath.

3. This is illustrated in the Figure below, which shows the impact of a supplier's remaining DCM stock falling just 2.5% below the glidepath in year 2 of the contract (following a level of replacement that was 'additional' to that provided for by the glidepath in that year). If the supplier could cut its future DCM replacements to zero, it would return to the glidepath in the following year, and pay Take or Pay charges on all of the 'additional' DCM replacement for only one year. However, in practice a supplier will still have to replace a significant number of DCMs in future years (as a result of policy replacement, maintenance replacement and functionality change provisions). Based on actual replacement rates in 2004, 2005 and 2006, the supplier would expect to return to the glidepath only in year 5 of the contract. The supplier would have to pay Take or Pay charges on some meters for 3 years.

Illustration of constraints on returning to the glidepath



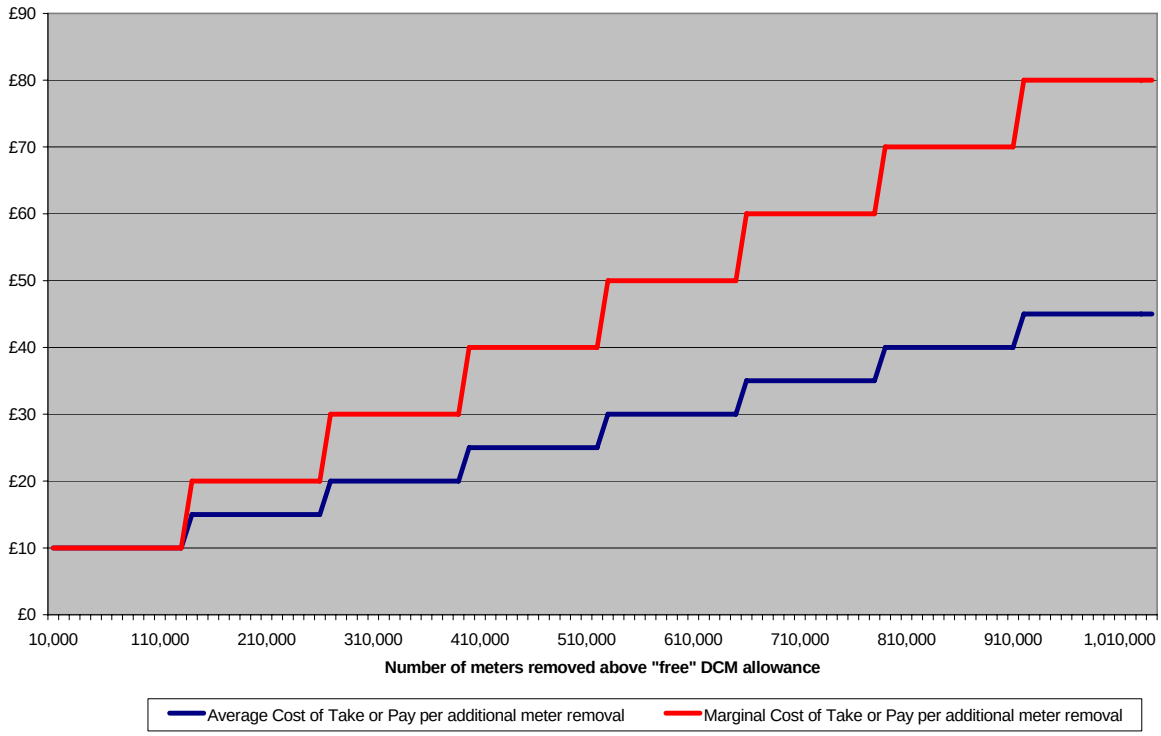
4. Suppliers face uncertainty over the actual level of DCM replacement that will result from policy replacement, maintenance replacement and functionality changes in future. The Authority considers that the actual aggregate level of replacement observed thus far each year – i.e. 850,000 DCMs per year – represents the most likely basis for any supplier's forecast about the constraint they would face when trying to exit the take or pay zone having exceeded the glidepath allowance. A supplier seeking to contract with a CMO is also likely to base its expectations about the cost of exceeding the glidepath replacement rate (which in turn will influence the commitments it makes to the CMO on the volume of meter replacement numbers) on the best available information. The Authority thinks that suppliers would use the level of non-discretionary meter exchanges observed in previous years. As this market has only recently been opened to competition, suppliers do not have any better information on which to base this assessment.

ANNEX 3: INDICATIVE MARGINAL AND AVERAGE COST OF BEING IN THE TAKE OR PAY ZONE

1. This Annex explains why when assessing the impact of the MSAs on competition and specifically, suppliers' willingness to contract with CMOs enabling them to expand their market share, it is important to consider the marginal cost of additional meter replacement faced by suppliers.

2. The figure below compares the average and marginal costs to suppliers under the MSA provisions of different levels of DCM replacement over and above the 'free' allowance provided for by the glidepath. As the marginal cost curve shows, the additional cost to suppliers under the MSA provisions of replacing additional meters rises rapidly as they replace more meters than allowed by the glidepath. Thus, the cost per additional meter replaced, if the stock of rented meters were, for all suppliers in aggregate, 520,000 below the glidepath level, would be around £50. To put that in context, 520,000 DCMs is equivalent to only around 3% of the legacy DCM stock. The Authority therefore concludes that suppliers looking to make even modest levels of replacement over and above that scheduled by NG (under the glidepath provisions) would face early replacement charges that were very high relative to the costs of providing a new DCM. This would effectively remove any incentives on suppliers to switch to CMOs even though they offer lower prices and better service.

Indicative average and marginal costs of replacing more DCMs than scheduled by NG under the Legacy MSA Glidepath



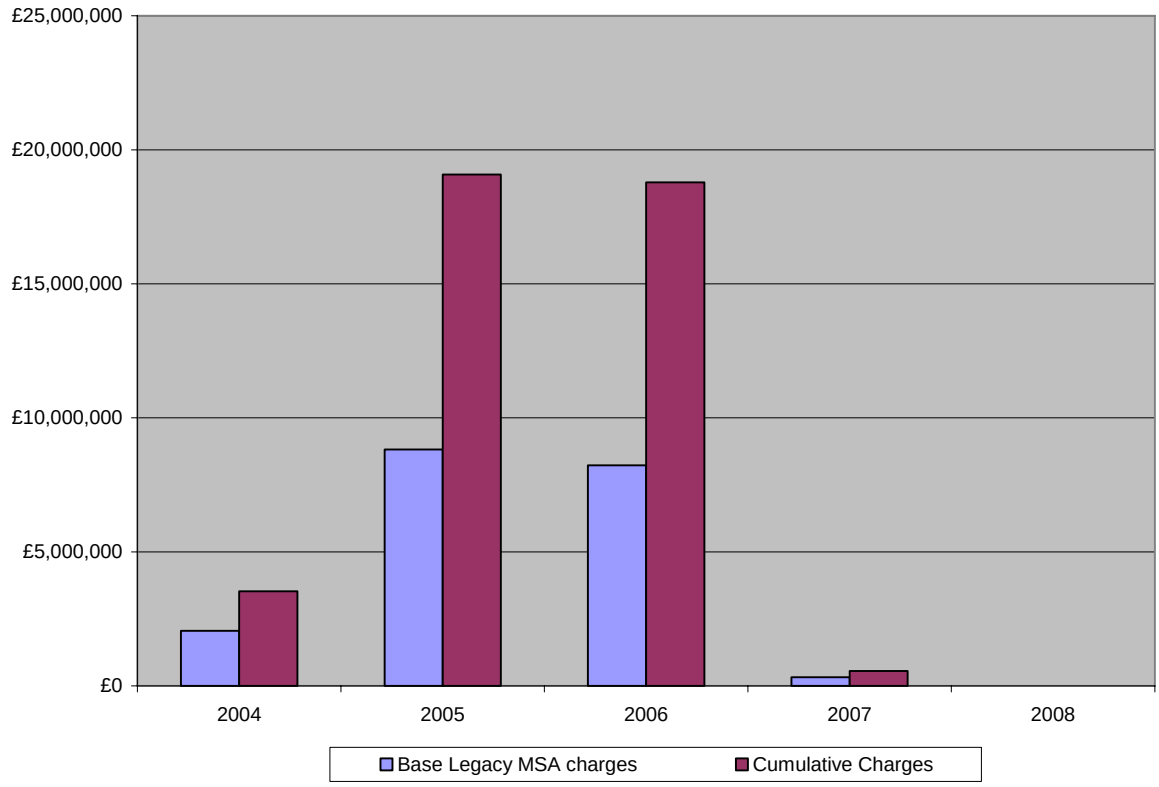
ANNEX 4: ANALYSIS OF CUMULATIVE EFFECT OF MSA PROVISIONS ON SUPPLIERS FOR PPM REPLACEMENT

1. This Annex sets out the Authority's assessment of the cumulative effect of the Legacy MSA arrangements on the cost to suppliers of replacing PPMs.

2. The figure below shows the costs of replacing 50% more than the 'free' PPM replacement provided for by the glidepath allowance in each of the first three years of the Legacy MSAs, with the figures calculated on the basis of: a) the base charge levels defined in the Legacy MSAs, and b) indicative charge levels that would have been applicable had NG re-balanced the levels of DCM and PPM charges (as discussed in Chapters 2 and 4).

3. Unlike with DCMs, PPM replacement is not likely to give rise to a long period of payment of take or pay charges. This is because a supplier's ability to leave the Take or Pay zone will be much less constrained than is the case for DCMs, as the number of policy replacement and maintenance replacements is much lower. Total costs in the first scenario amount to over £19 million, while those in the re-balanced charges scenario amount to around £42 million. These figures are equivalent to an average cost per additional meter replacement of around £46 on the basis of the current MSA charges, and around £100 on the basis of rebalanced charges.

Cumulative effect of Legacy MSA early replacement charging provisions on the costs of replacing more DCMs than scheduled by NG



ANNEX 5: DETAILED EXPLANATION OF FUNCTIONALITY CHANGE COSTS UNDER CMO ARRANGEMENTS

1. This Annex explains the Authority's calculation of the costs to suppliers of making functionality changes (i.e. switching a PPM to a DCM or vice versa) under the CMO contracts.

2. It should be emphasised that the assumptions and calculations below were made for the purposes of generating an approximate cost estimate and not for determining an exact cost.

3. Suppliers pay a transaction charge under both the N/R MSA and the CMO contracts where there has been a functionality change between a DCM and PPM or vice versa and the meter is less than 20 (or 10 for a PPM) years old. Suppliers pay a fixed transaction charge under the CMO contracts, in the initial period (the first 5-7 years in which the contracts operate). The average transaction charge is approximately £41 for DCM to PPM and £39 for PPM to DCM exchanges.[431] After the initial period, the transaction charge is determined on an age-related basis[432] The charge declines to £0 where the DCM/PPM had been installed more than 20/10 years ago. Under the N/R MSA, a single level of transaction charge is payable irrespective of the age of the meter. For 2006/07, the N/R transaction charge was equal to around £55.[433]

4. The Authority has examined the age-profile of the meters that NG replaced for suppliers other than BGT for functionality reasons over the first three years of the Legacy MSAs. The Authority then calculated the weighted average age of these meters and estimated the transaction charges that UMS would have applied to these exchanges.

5. To calculate the age-related transaction charge, the Authority first estimated the weighted average age of DCMs and PPMs that would be likely to attract a charge under an age-related approach to functionality changes (that is, the weighted average age of those DCMs that were less than 20 years old, and those PPMs less than 10 years old). This takes account of the ageing of the legacy meter stock over time (e.g. by end of 2006 there would be no Legacy meters under the age of 3 years). The resulting estimate of the weighted average age of meters exchanged for functionality reasons on which an age-related charge would have been payable is 10-11 years for DCMs and 5-6 years for PPMs.

6. To estimate the average level of functionality charge that suppliers would have paid, the average CMO transaction charge of £40 was multiplied by a relevant Technology Replacement Formula ('TRF')[434] used by UMS. The relevant TRF was derived by dividing the TRF in the UMS contract for the average aged meter subject to a functionality change charge (i.e. TRF for 10-11 yr old DCM is *[5.5-6.5]* with the TRF

[431] Schedule 2 of CMO contracts – Documents 4711, 4700, 4686. Where actual transaction charges have been redacted this is for confidentiality reasons.

[432] National Grid's written representations in response to put back document dated 17th October 2007, Document 11410, paragraph 35 and footnote 9.

[433] Document 11399.

[434] The TRF has been approximated form a multiplier in the CMO contracts used to calculate technology termination payments and functionality change charges.

that would apply if the meter were 0-1 year old (i.e. *[8-9]* for DCMs) [435]. The result is that the applicable transactional charge for a 10-11 year old DCM would be 70.5% of the average transactional charge (of £40), which is £28. The same approach[436] applied to PPMs gives an applicable average transaction charge of £23.

7. These charge levels imply total functionality charges of approximately £13.4 million for legacy DCMs[437] and £7.7 million[438] for legacy PPMs, a total of approximately £21 million compared to NG's figure of £37.5 million.

Table A3: Revised estimates of the financial effect of customer related exchanges, taking account of age profile and related charging issues

	DCMs
Customer Requested Exchange	520,000
92% < 20 years old	478,800
Indicative PRC	c. £28
Total PRC payment over 3 years	**£13.4 million**

	PPMs
Customer Requested Exchange	420,000
80% < 10 years old	336,000
Indicative PRC	c. £23
Total PRC payment over 3 years	**£7.7 million**

[435] Contract between UMS and BGT, Schedule 2 Meter Operator Services Contract Rates, Trading Area 4, Document 4700, Appendix 6, page 40.
[436] Relevant TRFs are in Contract between UMS and BGT, Schedule 2 Meter Operator Services Contract Rates , Trading Area 4, Document 4700, Appendix 6, page 40
[437] Consistent with Table B in NG's response to Ofgem's letter of 17 October 2007, Document 11410, page 14, this assessment of total DCM functionality change costs is based on a total of 478,800 DCMs having been removed for functionality reasons during the first 3 years of the Legacy MSA that were less than 20 years old (and thus would have been subject to an age-related charge).
[438] Consistent with Table B in NG's response to Ofgem's letter of 17 October 2007, Document 11410, page 14, this assessment of total PPM functionality change costs is based on a total 0f 336,000 PPMs having been removed for functionality reasons during the first 3 years of the Legacy MSA that were under 10 years (and thus would have been subject to an age-related charge).

ANNEX 6: DISCRETIONARY METER REPLACEMENT UNDER THE LEGACY MSAS COMPARED TO AN AGE-RELATED APPROACH

1. This Annex explains the Authority's assessment of the cost of discretionary meter replacement under the Legacy MSA as compared to an age-related PRC approach.

2. The assessment of the effects of the Legacy MSAs on replacement incentives considered replacement scenarios where suppliers replace around 50% and 65% more than the free glidepath allowance under the legacy MSAs over three years. These replacement scenarios were shown likely to give rise to average costs of additional meter replacement of around £60 and £65 per meter respectively.

3. The 50% scenario is equivalent to suppliers replacing around 0.5m DCMs over and above the free allowance, of around 0.98m DCMs, provided for by the Legacy MSA glidepath. In total, over the three years, this scenario involves replacement of around 4.4m DCMs, but – as shown in Table 7 – around 2m of this total is accounted for by non-discretionary replacements of DCMs that are less than 20 years old. The remaining number of replacements where suppliers have a discretion to replace is around 2.4m over the 3 years, that is, around 0.8 million DCMs per year.

4. However, as is clear from Table 8 in Chapter 4, the age structure of the DCM population is such that suppliers could potentially undertake all of the discretionary replacement under this scenario (2.4 million DCMs) in a single year, and the highest early replacement charge payable (£26.04) could still be less than half of the average costs under the Legacy MSA. The average costs of meter replacement under an age-related approach, if older meters are replaced first, and if the additional replacement was spread over three years, would be only a fraction (at most approximately 50%) of the average costs suppliers would pay under the Legacy MSAs.

5. This assessment focuses on the average cost of replacing 50% (c0.5m) more DCMs than the free allowance in each of the first 3 years of the contract. The cost of replacing additional DCMs under the Legacy MSAs – once the free allowance for replacement has been used up – increases rapidly, so that the likely cost of replacing an additional DCM could be in the order of £50 if suppliers replace only a few more than 0.5m DCMs - over and above the free allowance under the glidepath - were replaced in a single year. This implies that the level of discretionary replacement required before the cost of additional DCM replacement reaches £50 would be only a little more than 0.83 million[439].

6. As can be seen from Table 8 in Chapter 4, this level of discretionary replacement is only very slightly higher than the number of DCMs that could have been replaced without any early replacement charge under an age related approach. Since, additional replacement would involve the replacement of 19 year old meters, the cost of replacing additional DCMs (the marginal cost of DCM replacement) could be around £7 – that is, substantially lower than £50.

[439] The cost of non-discretionary replacement of DCMs was considered above, where it was concluded that these costs do not materially influence incentives to replace additional DCMs, over and above non-discretionary levels.

ANNEX 7: COMPARISON OF FREE METER REPLACEMENT UNDER THE MSAS COMPARED WITH AN AGE RELATED APPROACH.

1. This Annex sets out the comparison of free meter replacement under the MSAs compared with an age-related approach similar to that used in the CMO contracts.

2. As stated in the SSO, in the CMO contracts and in the New and Replacement MSAs, the total number of meters that can be replaced in a given year without incurring early replacement charges is the sum of:

    - the number of meters that have reached 20 years of age; and
    - the number of meters below this age but which have been identified for replacement as a result of an operational failing (having either been identified as faulty on a maintenance visit, or been part of a batch of meters that has been identified as insufficiently reliable/safe and thus as requiring "policy" replacement).

3. When the free replacement of policy meters is deducted from the glidepath to provide a more like-for-like comparison with the age-related approach, the position over the first three years of the MSAs is that slightly more than 300,000 legacy DCMs would have been available for free replacement under equivalent arrangements to the CMO contracts than under the Legacy MSA arrangements. This is illustrated in the table below.

Table A1: Domestic Credit Meters

	Cumulative DCMs as at End 2006 (Million DCMs)
Free replacement allowed for under Legacy MSA	2.93
Policy Replacement of under 20 yr old DCMs	1.50
Free replacement under Legacy MSA excluding policy replacement <20yrs	1.43
Number of DCMs that would be over 20 years old	1.74
Identified shortfall of "free meter replacement" under Legacy MSA c.f. age related CMO type arrangements	0.31

Table A1 Explanatory Notes:

1. Free replacement allowed for under Legacy MSA: 2.93 million DCMs

   As described in Paragraph 4.17 of the SSO, in aggregate, the cumulative number of DCMs that could have been replaced without paying early replacement charges under the Legacy MSA by the end of 2006 was 2.93 million.

2. Policy Replacement of under 20 yr old DCMs: 1.5 million DCMs

   Paragraph 4.26 of the SSO estimated that the cumulative volume of policy replacement related to legacy DCMs that were less than 20 years old would, by the end of 2006, have been around 1.5 million.

   As was noted in paragraph 4.27 of the SSO, the Authority considers that there are good reasons for believing that this 1.5 million figure underestimates the relevant number of DCMs, given that it takes no account of the fact that the number of less than 20 year old DCMs on the Replacement Schedule can be expected to greatly exceed this Replacement Number based estimate, and takes no account of National Grid comments with respect to actual policy replacement activity that it undertook in 2006 to balance a shortfall in earlier policy replacements.

3. Free replacement under Legacy MSA excluding policy replacement <20yrs: 1.43 million DCMs

   As stated in the SSO (for example, in paragraph 4.15), under the CMO contracts and the N/RMSAs, the total number of meters that could be removed without early replacement charges becoming payable would include DCMs that were less than 20 years old but that had been identified as requiring policy replacement or had been removed as a result of an identified fault. The figure of 1.43 million DCMs is calculated by deducting the SSO estimate of the cumulative volume of policy replacement related to legacy DCMs that were less than 20 years by the end of 2006 from the free replacement allowed for under the Legacy MSA over that period, before a comparison is made with the number of DCMs that would have been over 20 years old by the end of 2006.

4. Number of DCMs that would be over 20 years old: 1.74 million DCMs

   On the basis of the new age profile data that was provided by National Grid after the SSO had been issued, the Authority's view is now the total number of DCMs over 20 years by the end of 2006 would have been 1.74m (the same figure as presented by National Grid on page 107 (paragraph 48) of its written response to the SSO).

5. Identified shortfall of free meter replacements under Legacy MSA compared with a CMO equivalent age related approach: 0.31 million DCMs

4. The Authority considers that there are good reasons to conclude that this underestimates the number of additional meters that would have been available for free replacement under contractual provisions equivalent to those in the CMO contracts or the N/R MSAs. For example, the assessment only considers policy replacement of meters under 20 years old, taking no account of the fact that some

less than 20 year old meters will be removed as faulty on maintenance visits. Paragraph 4.28 of the SSO estimated that the number of legacy DCMs that were less than 20 years old and that were replaced on a maintenance visit over the period 2004-06 could be of the order of 100,000.

5. The new age profile data provided to us by National Grid has allowed the Authority to run the same calculation for prepayment meters (PPMs)[440]. The results of our analysis agree with National Grid's, that over the first three years of the contract the Legacy MSA glidepath offers around 280,000 more PPMs for free replacement than under an age related approach.

Table A2: PPMs

	Cumulative PPMs as at End 2006 (Million PPMs)
Free replacement allowed for under Legacy MSA	0.84
Maintenance Replacement of under 10 yr old PPMs	0.21
Free replacement under Legacy MSA excluding maintenance replacement <10yrs	0.63
Number of PPMs that would be over 10 years old	0.35
Identified excess of "free PPM replacement" under Legacy MSA cf age related approach CMO- type approach	0.28

[440] National Grid's written response, dated 6 July 2007, Document 11380, page 112, paragraph 66 notes that the Authority's analysis is "wrongly truncated" as it has not been done for PPMs. However, the old age profile data for PPMs were not suitable for this purpose given that the age data were based on the year of manufacture and a high proportion of legacy PPMs have been refurbished (see Statement of Objections, paragraph 2.86).

Table A2 Explanatory Notes

1. Free replacement allowed for under Legacy MSA: 0.84 million PPMs

   The cumulative volume of PPMs that could be replaced "free" under the glidepath over the period 2004-06 is shown as 0.84m. This is consistent with the figure of 836,000 shown for contract year 3 under the column "Cumulative number of meters available for "free" removals under MSAs" in Table 1 on p113 of National Grid's written response to the SSO.

2. Maintenance Replacement of under 10 yr old PPMs: 0.21 million PPMs

   The data presented in Table 1 (p113) of National Grid's written response to the SSO indicates that 0.21m maintenance replacements of PPMs less than 10 years old were undertaken over the period 2004-06 (i.e. 559,000 less 351,000 for contract year 3).

3. Free replacement under Legacy MSA excluding maintenance replacement <10yrs: 0.63 million PPMs

   The figure of 0.63 million PPMs is calculated by deducting the figure in (2) above from that in (1), before comparing the residual with the number of PPMs that would have been older than 10 by the end of 2006.

4. Number of PPMs that would be over 10 years old: 0.35 million PPMs

   On the basis of the new age profile data that was provided by National Grid after the SSO had been issued, the Authority's view is that the total number of PPMs that would have been over 10 years old by the end of 2006 would have been 0.35m. This is consistent with the figure (351,000) presented by National Grid in Table 1 (in column 3, for Contract Year 3) on page 107 (paragraph 48) of its written response to the SSO.

5. Identified excess under Legacy MSA: 0.28 million PPMs

   This figure is consistent with the figure (275,000) identified by National Grid on page 89 of its written response to the SSO.

   When PPMs and DCMs are taken together it is clear that, over the first three years of the contract, there has been relatively little difference between the number of meters available for free replacement under the Legacy MSA and the number of meters that would have been available under contractual provisions that were equivalent to those in the CMO contracts or the N/R MSAs.

   The Authority notes that this assessment takes no account of the fact that some DCMs that are less than 20 year old will be removed as faulty on maintenance visits. Paragraph 4.28 of the SSO estimated that the number of legacy DCMs that were less than 20 years old and that were replaced on a maintenance visit over the period 2004-06 could be of the order of 100,000. Thus, taking account of DCM replacements on maintenance visits would be likely to increase this shortfall to around 0.4m DCMs.

ANNEX 8: THE AUTHORITY'S CONDUCT IN RESPECT OF PRCS

1. This annex responds to certain arguments made by NG relating to the Authority's alleged conduct in respect to PRCs. Paragraphs 2 – 4 below address NG's contention[441] that 'the Authority publicly acknowledged the legitimacy of PRCs' and paragraphs 5 – 8 address the contention that the 'use of PRCs was suggested to NG by the Authority'.

2. In a consultation document entitled 'Ofgem's Strategy for Metering: Update on Progress and Next Steps', published in May 2002, Ofgem observed that: "by absorbing the costs of 'stranding through reducing meter costs' and pricing at a market level (replacement cost), Transco and the DNOs could minimise the likely level of premature replacement". The document went on: "In a competitive market, Transco could be expected to respond to this threat [of premature asset replacement] by reducing their price to the market level – but in the short term, as competition is just emerging, may not do so because their prices are not yet under sufficient pressure".

3. The document also stated:

> 'in a commercial metering environment, meter service providers would seek to avoid stranding by structuring prices to recover costs up front, by levying cancellation charges or by reflecting the risk of losing a customer in their prices'.

4. NG relies on that document, and in particular the third extract, as evidence that the Authority recognised the legitimacy of PRCs. In fact, the document pre-supposed the existence of a competitive market. Ofgem's observations in the document were aimed at addressing concerns by potential new entrants about stranding and inefficient premature asset replacement in a competitive market: new meter operators might have been unwilling to invest if there were risks that their meters could be stranded if the end customer changed supplier. The levying of cancellation charges is listed as one of a number of possible options which might be adopted by service providers to address their stranding risk. Other courses of action open to the industry included pricing at market level or charging at a level to reflect the risk of stranding. The intention was not to suggest that the incumbent operator should adopt such an approach to protect itself from the normal effects of competition with regard to loss of market share and asset stranding.

5. Ofgem met with NG on 28 June 2002 at NG's request to discuss some of the issues raised by the May strategy document. NG were told that Ofgem would be willing to consider any proposals as to how to ensure that meters were replaced at a sensible rate and to address the issue of stranding, short of reopening the price control. NG says that the use of premature replacement charges was suggested by Ofgem in the

[441] NG's Written Representations of 10 August 2006, in response to Ofgem's Statement of Objections of 17 May 2006, Document 11231, page 112, paragraph 386-390.

course of that meeting, citing as evidence for that contention an internal email circulated one week after the meeting had taken place[442], which reads:

> 'At a recent meeting Ofgem suggested an alternative approach whereby Transco would discourage premature replacement by charging a Termination fee if meters were replaced before the end of their useful lives.'

6. However, neither the contemporaneous meeting note made by NG at the meeting, nor that made by Ofgem[443], refer to Ofgem making this suggestion at the meeting.

7. Moreover, one of the slides prepared by NG in advance of the meeting on 28 June as an 'aide memoire'[444] states that

> 'NG will, inter alia, reduce prices to an agreed level 'in exchange for…shipper/suppliers [being] obligated to offer to buy a Transco meter if removed prematurely'.[445]

8. That bullet point indicates that NG were already contemplating imposing charges on suppliers opting to replace NG meters 'prematurely' ahead of the meeting of 28 June 2002.

[442] Email from *[excised]* 4 July 2002, Document 319. It should be noted that *[excised]* did not attend the meeting on 28 June 2002 (see John Neilson's contemporaneous, handwritten meeting note, Document 280, which records those present from Transco as 'DR CS PW MC'.)

[443] Ofgem's handwritten meeting note, Document 11366.

[444] It is National Grid's recollection that the 'aide memoire' slides were prepared between 25 and 27 June 2002, ahead of the 28 June meeting and were used as information notes for National Grid attendees at the meeting.

[445] Final 'aide memoire', Document 648, slide entitled 'Transco Solution'.