



Neutral citation [2009] CAT 14

IN THE COMPETITION
APPEAL TRIBUNAL

Case Number: 1099/1/2/08

Victoria House
Bloomsbury Place
London WC1A 2EB

29 April 2009

Before:

VIVIEN ROSE
(Chairman)
PROFESSOR PAUL STONEMAN
DAVID SUMMERS

Sitting as a Tribunal in England and Wales

BETWEEN:

NATIONAL GRID PLC

Appellant

- v -

GAS AND ELECTRICITY MARKETS AUTHORITY

Respondent

supported by

SIEMENS PLC
CAPITAL METERS LIMITED
METER FIT (NORTH WEST) LIMITED
METER FIT (NORTH EAST) LIMITED

Interveners

Heard at Victoria House on 15 to 28 January 2009

JUDGMENT (Non-Confidential Version)

Note: Excisions in this judgment marked “[...][C]” relate to passages excluded having regard to Schedule 4, paragraph 1 to the Enterprise Act 2002

APPEARANCES

Mr Jon Turner QC, Mr Josh Holmes, Mr Meredith Pickford and Ms Laura Elizabeth John (instructed by Pinsent Masons LLP) appeared on behalf of the Appellant.

Ms Monica Carss-Frisk QC, Mr Brian Kennelly and Mr Tristan Jones (instructed by the Gas and Electricity Markets Authority) appeared on behalf of the Respondent.

Mr Christopher Vajda QC and Ms Kassie Smith (instructed by Hill Hofstetter LLP) appeared on behalf of Siemens plc.

Mr Christopher Vajda QC and Mr Ben Rayment (instructed by Slaughter and May) appeared on behalf of Capital Meters Limited.

Mr Fergus Randolph and Ms Sarah Abram (instructed by United Utilities Group plc) appeared on behalf of Meter Fit (North West) Limited and Meter Fit (North East) Limited.

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I. BACKGROUND

1. This appeal is brought by the appellant, National Grid plc (“National Grid”), under section 46 of the Competition Act 1998 (“the 1998 Act”). National Grid challenges a decision published by the Gas and Electricity Markets Authority (“the Authority”) on 21 February 2008. In that decision (“the Decision”) the Authority found that National Grid had abused its dominant position in the market in Great Britain for the provision of domestic-sized gas meters, contrary to section 18 of the 1998 Act and Article 82 of the EC Treaty. The Decision imposed a fine of £41.6 million on National Grid and ordered National Grid to put an end to the infringement.¹
2. The main hearing of this appeal took place in January 2009. Before that hearing, the parties submitted a large number of witness statements relating to many different aspects of the appeal. Some of the witnesses were cross examined during the hearing in January 2009. There is considerable movement of personnel among the companies operating in this market so that some witnesses now working for one of the parties gave evidence about what happened at a time when they were working for another company. In Annex 1 to this judgment we set out a *dramatis personae* explaining the witnesses’ employment position at the time they signed their statements and their employment position at the time about which they gave their evidence.

(a) *The development of competition in metering*

3. The provision of natural gas to end consumers involves a number of distinct steps. The gas is extracted by gas producers and then sold to shippers. The shippers contract with gas transporters which own and operate the pipelines to carry the gas throughout Great Britain. Gas suppliers then purchase gas from the shippers and sell it to domestic and commercial end consumers.
4. Under the Gas Act 1986, every domestic customer is obliged to receive their supply of gas through a gas meter. Meter operators, such as National Grid, typically buy the

¹ Under s. 36A(3) of the Gas Act 1986, the Authority is entitled to exercise functions under Part 1 of the 1998 Act in respect of conduct relating to activities falling within the Authority’s remit. The Authority is also designated as a national competition authority for enforcing the competition provisions of the EC Treaty: see regulation 3 of the Competition Act 1998 and Other Enactments (Amendment) Regulations 2004 (S.I. 2004/1261) and section 54(1)(b) of the 1998 Act.

meters from manufacturers and retain ownership of the gas meter throughout its life. The meter operator provides the meter to the gas supplier so that the gas supplier can sell gas to a particular household. Installation costs are significant in comparison with the value of an individual meter. National Grid's average installation costs, in addition to the cost of buying the meter, are currently over £50 per meter. National Grid has traditionally sought to recover the costs of providing the meter, including any on-going maintenance, through the annual rental charges it sets for each meter. A similar business model has been adopted by competing meter operators ("CMOs") which have recently entered the market. This means that in general² there is no transaction charge for the initial installation of the meter at the premises – the meter is simply installed by the meter operator and the gas supplier starts paying the monthly rentals. If a householder decides to change gas supplier there is normally no need for the meter to be removed or adjusted. The meter operators and gas suppliers make arrangements whereby the rental payments for the meter are thereafter made to the meter operator by the gas supplier to which the customer has switched his or her supply.

5. As at the date of the Decision there were approximately 22 million domestic gas meters installed in Great Britain. Of these, around 90 per cent are domestic credit meters ("DCMs") and the remaining 10 per cent are prepayment meters ("PPMs"). Both types of meter measure the consumption of gas, but a PPM requires the consumer to pay in advance for gas for example by using a prepayment card. Consumers using DCMs are billed periodically either following a meter reading or based on an estimate of gas used over the preceding period. According to the Decision (paragraphs 2.14 and 2.16), a new DCM costs around £20 and typically lasts 20 years whereas a new PPM costs around £120 and typically lasts 10 years. In practice, the time for which both PPMs and DCMs remain installed at a property can be considerably longer than these periods. Because PPMs are much more expensive, it can often be economic to refurbish a PPM and install it at another property if it is removed before the end of its useful life. DCMs are generally installed only once and discarded if removed from a property even if they are still functioning properly.

² Under their contracts with British Gas the CMOs charge a transaction fee for carrying out a functionality exchange. The significance of this is discussed further below. National Grid has charged upfront costs for the installation of new "Category 2" meters (that is a meter installed in a premises which did not previously have a gas meter) since October 2000. By January 2004, there were 700,000 installed meters for which an installation charge had been levied.

6. Historically, National Grid's predecessor (Transco plc) had a monopoly both of gas transportation and of the supply of gas meters and ancillary services. National Grid's meter related costs were recovered from the charges set by the regulator for National Grid's overall transportation business. Following the introduction of competition into the domestic supply of gas in 1998 the then regulator, Ofgas, began consulting the industry on how to enable other companies to compete with National Grid in supplying gas meters. In order for such competition to be possible, it was important to separate out the charges that National Grid set for its metering services from its charges for gas transportation. Ofgas therefore brought about the separation of National Grid's existing regulated transportation price control into three separate components: transportation, gas metering and gas meter reading. A new five year price control was put in place in April 2002. For the first time this set an identifiable price cap for National Grid's metering rental charges.

7. In 2002 the Authority also launched an industry wide review, referred to as the Review of Gas Metering Arrangements ("RGMA"), designed to encourage competition in gas meter provision. According to the Decision (paragraph 2.61), RGMA was aimed at "setting up standard, industry-wide processes and data flows to support all companies in the metering market and the competitive retail market". Paragraph 2.63 of the Decision explains further:

"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 [National Grid], 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." (footnote references omitted)

8. Moving to the 'supplier hub' principle required meter operators and gas suppliers to enter into new contracts. The new contracts entered into between National Grid and gas suppliers were known as Provision and Maintenance ("P&M") contracts. The terms of these contracts had been developed multilaterally by the industry as part of the RGMA process. Under the P&M contracts there are no upfront charges for the installation of a meter. National Grid is remunerated by monthly rental payments from the time of installation until the meter is removed. Suppliers are able to replace

National Grid's meters at 48 hours' notice without incurring any additional charges. The rental prices contained in the P&M contracts are in line with the cap set by Ofgem in the April 2002 price control.

(b) *The genesis of the National Grid MSA contracts*

9. Over the years prior to the setting of the price control in 2002, the prices charged for gas meters by the meter manufacturers had fallen substantially. The Authority estimated that there was a fall in prices of about 46 per cent between 1995 and 2000. At some point, National Grid realised that new CMOs entering the industry following the RGMA would be able to undercut the rental rates in the P&M contract terms. If CMOs were able to replace National Grid's meters with those of a CMO offering lower rentals, without having to pay a penalty, this would deprive National Grid of the rental income stream from which it had expected, prior to the introduction of competition, to be able to recoup its costs of installation. Given that most meters have little reuse value once removed, this would lead to an outcome that National Grid referred to as the "stranding" of its assets. National Grid initially explored with the Authority whether some adjustment could be made to the price control to compensate it for the risk of asset stranding following the introduction of competition. But in the light of a negative response from the Authority, National Grid instead began negotiations with each of the gas suppliers for a new contract covering the continued rental of the meters that were already installed in customers' premises. These installed meters are generally referred to as the "legacy" meter stock.
10. The evidence before the Tribunal about the negotiations of these new contracts focussed mainly on National Grid's negotiations with British Gas plc ("British Gas"). British Gas at that time had a share of around 65 per cent of the market for the supply of domestic gas. The negotiations between National Grid and British Gas are an important element in these proceedings (see further, paragraphs [61] onwards, below). For now it is sufficient to note that a Letter of Intent was signed by British Gas and National Grid in December 2002 setting out the principal matters which the parties agreed would form the basis of the more detailed contract in due course.
11. Two meter services agreements ("MSAs") were eventually devised:

(a) a contract covering the existing base of installed meters owned by National Grid as at 1 January 2004 pursuant to which British Gas would rent a declining minimum number of meters per year with early replacement charges payable by British Gas if the number of meters rented fell below that minimum (“the Legacy MSA”); and

(b) a contract covering any meters installed by National Grid on or after 1 January 2004 (the “New and Replacement MSA” or “N/R MSA”).

12. The Legacy and N/R MSAs were signed by National Grid and British Gas in January 2004. Between January and August 2004 National Grid entered into equivalent contracts with RWE npower plc, Powergen Ltd (which subsequently became part of the E.ON group), Scottish Power plc, Scottish and Southern Energy plc and several smaller gas suppliers. Electricité de France (“EdF”) chose to keep its legacy meters on the existing P&M contract terms.

(c) *British Gas’s response to the possibility of metering competition*

13. As a result of the RGMA, British Gas decided to take advantage of the opening up of the market to competition by awarding some of its metering work to CMOs. Evidence on the tender process was provided to the Tribunal by Mr Steven Lewis who, from November 2000 to July 2006, worked for British Gas first as a member of what they called the Unbundling Team and then as part of the National Metering Team. In June 2001 British Gas published a notice in the *Official Journal of the European Communities* inviting expressions of interest in tendering to supply British Gas with gas and electricity metering services. In August 2001 an Invitation to Tender (“ITT”) was issued to those who had expressed an interest and a short list of eight potential bidders was drawn up. The ITT divided Great Britain into seven regions so that British Gas could appoint a number of different CMOs, each with exclusive rights to supply meters in the area or areas allocated to it.

14. Tenders were submitted by a number of potential CMOs including the Interveners in these proceedings: Capital Meters Limited (“CML”) which is partly owned by Siemens plc (“Siemens”) and Meter Fit (North West) Limited and Meter Fit (North East) Limited (together, “Meter Fit”). Meter Fit is a special purpose vehicle created by

United Utilities plc. British Gas also started negotiations with Utility Metering Services Ltd (“UMS”) which is a subsidiary of National Grid but is not regulated by any licence obligations under the Gas Act 1986. UMS trades as OnStream.

15. In May 2002 British Gas announced the appointment of Meter Fit as its meter services provider in North Wales and North West and North East England. In December 2002 it appointed UMS as its meter provider in Scotland, the Midlands, the South East and South West of England and South Wales. Finally, in December 2003, it appointed CML to provide meters in East Anglia and most of London. The contracts entered into between British Gas and the CMOs generally lasted for 20 years. That 20 years was divided into two periods. In the initial period, usually 5 years, the CMO had the exclusive right to install meters for British Gas in the relevant region of the country (subject to certain exceptions where the choice of installer was effectively outside British Gas’s control). After the expiry of the initial period that exclusivity no longer applied but the contract remained in place to govern the continued rental of the meters which had been installed by the CMO during the initial period.
16. There was some evidence before us as to why gas suppliers other than British Gas did not take advantage of the opening of the market by placing some of their metering business with CMOs. The Interveners suggested that gas suppliers were inhibited from doing so by the Legacy MSA contract they had signed with National Grid or by the Authority’s investigation into the Legacy MSA terms. National Grid refuted that suggestion by citing a number of other possible reasons. We have not found it necessary to make any finding on this point. We understand that shortly before the hearing in this appeal, some of the other gas suppliers did appoint CMOs to undertake some of their meter work.

II. THE MSA CONTRACTS

17. Before describing the main provisions of the Legacy MSA and N/R MSA in more detail, there are a number of additional terms which are widely used in this industry that need to be explained.

Discretionary and non-discretionary replacements

18. Under the Gas Act 1986, National Grid is responsible for ensuring the accuracy and safety of its meters. Batches of meters which are shown, following the testing of a sample by National Grid, to fall outside a fixed accuracy threshold are entered on a replacement schedule. At the relevant time, that threshold was set at a level where 30 per cent of a particular population is or is likely to become in the near term +/- 2 per cent inaccurate. Under the terms of the Legacy MSA, National Grid specifies a number of meters from the replacement schedule which the gas supplier must replace in a given year. These replacements are referred to as “policy replacements” and are considered “non-discretionary” because the gas supplier is required, by National Grid, to ensure they are carried out. At least once a year, National Grid issues the list of meters that have been identified for policy replacement and will specify the minimum number of non-urgent meters that must be replaced in the year in question. The full list of non-urgent meters for replacement must contain at least 1.3 times the number that National Grid has specified should be replaced. This gives the gas supplier a degree of flexibility over precisely which meters it replaces. The gas supplier does not have to use National Grid to replace these policy meters but can elect instead to use a CMO to replace them.

19. Meter replacement can also occur following a request from a gas supplier to exchange a DCM for a PPM or vice versa. The request may originate either with the gas supplier in order to mitigate, for example, a perceived credit risk or with the end consumer making a request for an exchange. These are called “customer requested exchanges” (“CREs”) or “functionality exchanges”. The Authority (at paragraph 4.38 of the Decision) includes such replacements in its category of “non-discretionary exchanges” in addition to replacements that occur when a meter is faulty (for example, when a meter is replaced on a maintenance visit) or to meet policy replacement requirements. These can be contrasted with “discretionary exchanges” which are replacements which the gas supplier decides to carry out on its own initiative.

“Smart” and “dumb” meters

20. The gas meters making up the legacy stock are referred to as ‘dumb’ meters because the volume of gas consumed by the customer can be ascertained only by someone visiting

the premises in order to record the gas meter reading. Trials have been carried out in relation to more advanced or ‘smart’ meters which would allow for automated meter readings and two-way electronic communication between the gas supplier and the meter, as well as other services, such as remote disconnections and switching between credit and prepayment modes. The move to smart metering is considered further in paragraphs [196] onwards, below.

(a) *The Legacy MSA*

21. The Legacy MSA terms apply to all domestic meters rented as at 1 January 2004 by National Grid to the gas suppliers who signed a Legacy MSA contract. The aim of the contract is to ensure that however quickly the gas supplier decides to replace National Grid’s meters with those of the CMOs, National Grid’s on-going income from that gas supplier is to some extent protected. The contract first identifies the number of meters that the gas supplier is renting from National Grid at the start date. The gas supplier commits either to rent from National Grid in each month a defined proportion of that initial population or to make additional payments to National Grid if it does not rent that defined proportion. The period covered by the commitment is 18 years in respect of DCMs and 7 years in respect of PPMs. The number of meters that the gas supplier must pay for declines by an equal number each month over the given period (subject to the adjustments referred to below). The number of DCMs that the supplier is committed to paying for thus diminishes by $1/216^{\text{th}}$ each month (i.e. 18 years’ worth of 12 monthly periods). The initial population of PPMs is allowed to reduce by $1/84^{\text{th}}$ each month (i.e. 7 years’ worth of 12 monthly payments). This contractual monthly reduction in the commitment is described by the parties as “the glidepath”.

22. Before 2004, DCMs had been replaced at an average annual rate of 5 per cent. The Legacy MSA allows for replacement at a level of about 5.5 per cent per year. The effect of the glidepath, so far as DCMs are concerned, is that gas suppliers can replace, free of penalty, a number of meters slightly in excess of the historic rate at which National Grid had replaced them before the RGMA. The Legacy MSA therefore shielded National Grid to some extent from the possibility that the opening of the market to competition would spur gas suppliers to replace its meters at a much faster rate than they had done when National Grid was the monopoly supplier.

23. The allowed number of charge-free meter removals is adjusted each year to take account of the fact that end-customers are lost and gained by one gas supplier to another over the period. So if a customer decides to change his gas supplier, the meter at that premises will move from being covered by the old supplier's Legacy MSA to being covered by the new supplier's Legacy MSA (assuming the new supplier has signed a Legacy MSA). The glidepath is reset at the start of each month with any necessary adjustments to reflect changes in market share during the course of the previous month being made to the following month's rental commitment.
24. In any month where the number of meters rented is in fact lower than the number that the glidepath indicates should have been rented in that month, the supplier incurs certain charges. If the remaining legacy stock in fact rented is between 90 per cent and 100 per cent of the glidepath commitment, the supplier continues to pay the full rental due for the number of meters that it was supposed to be renting at that point. In this judgment we refer to this 10 per cent tolerance band as the "Take or Pay zone" and to the charges set for removed meters falling in the Take or Pay zone as "Below Line Rentals" or "BLRs".
25. If the remaining stock actually rented that month is below 90 per cent of the glidepath commitment, the supplier must pay National Grid the BLRs for the meters in the Take or Pay zone and in addition pays a one-off fee per meter for any meter beyond the 10 per cent Take or Pay zone. This fee is referred to in the Legacy MSA as a "Premature Replacement Charge" or "PRC". If a supplier removes meters beyond the Take or Pay zone and pays PRCs for those meters, the on-going commitment under the Legacy MSA is reduced by the number of meters for which a PRC has been paid. The glidepath is adjusted to reduce the overall number of meters rented but also to reduce the monthly diminution in the rental commitment. This means that the gas supplier has to rent fewer meters as a result of paying PRCs but the number of meters he can remove each month is also reduced so that his commitment to rent at least some meters under the Legacy MSA still lasts for 18 and 7 years in the case of DCMs and PPMs, respectively.
26. The amount of the PRC payable declines annually over the term of the glidepath. The list of PRCs for DCMs shows 18 separate PRC fees, one for each year of commitment,

declining from £58.44 in year 1 to £1.19 in year 18. The list for PPMs shows 7 separate PRC amounts, one for each year of commitment, declining from £37.95 in year 1 to £1.74 in year 7.

27. According to National Grid, the PRCs are calculated on the basis of the net present value of the rental revenue foregone in the future from the early replacement of the meter before the expiry of the 18 year obligation (or 7 year obligation in the case of PPMs), less the costs National Grid no longer incurs as a result of having one less meter installed. PRCs are adjusted annually on 1 April each year in accordance with the Retail Prices Index (“RPI”). An alternative higher set of PRCs is payable where National Grid is of the reasonable opinion that a gas supplier has removed a disproportionate number of younger meters. This extra charge, according to National Grid, is designed to compensate it for the reduced likelihood of the remaining stock of assets lasting until the end of the glidepath, something that would in turn lead to a reduction in rental income.
28. It is only the commitment to pay for a certain number of meters that has an 18 year or 7 year duration. The Legacy MSA itself is indefinite in duration. If the gas supplier does not in fact choose to replace all its National Grid legacy meters with new meters it must, of course, still pay rental to National Grid under the Legacy MSA for all the meters it in fact rents. At the end of the 18 year commitment period, the gas supplier will no longer have to pay BLRs or PRCs if it then decides to replace legacy meters with new National Grid or CMO meters. The rental set by the Legacy MSA is adjusted over the period of the contract in line with inflation.

(b) The New and Replacement MSA

29. The N/R MSA covers meters installed by National Grid on or after 1 January 2004. The contract also includes PRCs but there is no Take or Pay zone and hence no BLRs. PRCs are not calculated on the basis of a scheduled glidepath which reduces annually but on the number of years that have elapsed since the individual meter was installed. The PRC therefore declines over the assumed life of the meters, which is taken to be 10 years for PPMs and 20 years for DCMs. The PRCs in the N/R MSA are, according to National Grid, designed to compensate it for the present value of lost revenues that

National Grid would have received had the meters remained in place for their assumed life, net of the present value of costs saved as a consequence of early replacement.

III. THE APPEAL

30. The main findings of the Authority as set out in the Decision are as follows:
- (a) The relevant product market for the purposes of the Decision is the market for the provision of installed domestic-sized gas meters including the ancillary service of meter maintenance in Great Britain.
 - (b) National Grid is dominant in that market.
 - (c) National Grid has abused that dominant position by entering into long term contracts which restrict the rate at which gas suppliers can replace National Grid's meters with meters offered by CMOs. The operative part of the Decision identified the abuse as "including in the long-term meter supply arrangements (the MSAs) the Take or Pay charges and the Premature Replacement Charges".
 - (d) That abuse had been committed negligently for the purposes of section 36(3) of the 1998 Act.
31. As well as imposing a fine of £41.6 million, the Authority directed National Grid to put an end to the infringement and to refrain from engaging in conduct having the same or equivalent exclusionary effect. The implementation of the Authority's directions ordering National Grid to put an end to the infringement was suspended by order of the President, pending the determination of the appeal. Following the lodging of the Notice of Appeal, CML, Siemens and Meter Fit were granted permission to intervene.
32. The Notice of Appeal is an extensive document which, including annexes, runs to over 300 pages. National Grid challenges many aspects of the Decision and the grounds of challenge are wide ranging. Further points have been developed by the parties in their extensive written submissions in the run up to and during the hearing. Both sides have argued that some of these further points are inadmissible either, as regards National

Grid's case, because they have not been prefigured in the pleadings or, as regards the Authority's case, because they depart from the reasoning set out in the Decision.

33. The Tribunal has all along been concerned to keep the scope of these proceedings within manageable bounds: see our ruling in this appeal of 8 October 2008 ([2008] CAT 26, paragraph [3]). However, we bear in mind that this case is not simply about an alleged abuse occurring in the past: the glidepath provided for in the Legacy MSA still has 14 years to run in respect of DCM meters and its provisions are likely, if they remain in place as a result of this appeal, to have an important impact on the development of competition in the relevant market. This is an appeal on the merits, not a judicial review of the Authority's decision: see paragraph 3(1) of Schedule 8 to the 1998 Act. It is appropriate in the public interest for the Tribunal to consider all relevant arguments raised in the appeal provided that the parties have had sufficient opportunity to make submissions on them.

IV. MARKET DEFINITION

34. The test for determining the relevant market under Article 82 EC and the Chapter II prohibition in the 1998 Act is well established in the jurisprudence both of the European Courts and of this Tribunal. By the time of the hearing in this appeal, it was only the definition of the relevant product market, not of the geographic market that was in dispute. The position is summarised by the European Commission in its *Notice on the definition of the relevant market for the purposes of Community competition law* (OJ C372 9.12.1997) as follows:

“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” (paragraph 7).

35. In *Aberdeen Journals Ltd (No 1) v Director General of Fair Trading* [2002] CAT 4 the Tribunal stressed that each case depends on its own facts and that:

“... 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?” (paragraph [97]).

36. The market definition arrived at by the Authority was “the market for the provision of installed domestic-sized gas meters including the ancillary service of meter maintenance in Great Britain” (paragraph 3.51 of the Decision). In coming to this conclusion the Authority found that:

- (a) new or replacement meters are good substitutes for installed, legacy meters;
- (b) DCMs and PPMs are effective substitutes for each other because they both measure gas consumption in domestic homes;
- (c) larger capacity gas meters are not effective substitutes for domestic-sized gas meters and neither are electricity meters;
- (d) there is no separate market for meter maintenance so that maintenance should be treated as an ancillary service to the provision of the installed gas meter;
- (e) there is insufficient supply-side substitutability from electricity metering to justify including it in the relevant market.

37. In the Tribunal’s judgment, the Authority’s analysis of the relevant market was entirely correct. It is critical to recognise that the product under consideration is not the gas meter itself. The product was found in the Decision to be the *installed* gas meter and this was not challenged by National Grid. This means that the product is in fact a service – the service of providing an installed meter to measure the amount of gas consumed by the retail customer in the domestic premises. This service comprises a number of elements: the initial purchase of the meter from the manufacturer, the installation of the meter, its maintenance and various data services. The importance of the data services element in the overall product was illustrated by the problems that arose for the CMOs when starting up under their contracts, as discussed later. When gas suppliers are deciding from whom to acquire metering services they compare the service on offer from the company which is currently providing the service with the service on offer from a company which could replace the existing provider’s meters with its own. The comparison will be based in large part on price but may also take

into account other elements of service such as speed of response to calls. As far as the gas supplier is concerned, the on-going metering services offered by the operator who owns the existing installed meter competes with those offered by a different meter operator who would install a new meter in order to provide the services. The evidence we saw about British Gas's reaction to the potential supply from CMOs shows the company making just such a comparison.

38. Expert evidence on market definition was given for National Grid by Dr Mark Williams, an economist working for the consultancy firm NERA Economic Consulting. He provided two expert reports and gave evidence at the hearing. His first argument was that the issue is not whether the physical characteristics of the meters are the same but whether the economic characteristics are. Because most of the costs of legacy meters are sunk whereas those of new or replacement ("n/r") meters are not, the incremental costs of supplying a n/r meter are substantially higher than the incremental costs of supplying a legacy meter. The economics of supply of the two meters are therefore subject to real and objective differences.
39. It may well be true that from the supplier's perspective there are important differences in the economics of supplying the metering service through a legacy as compared with a n/r meter. But that has nothing to do with the test that we must apply. The case law which binds us is clear that the product market is defined primarily by assessing demand-side substitutability, that is, by looking at what the customer (i.e. the gas supplier) regards as the available alternatives to the putative dominant company's offering (see, for example, paragraph 13 of the EC Commission's *Notice on the definition of the relevant market*). There are many instances where the processes involved for suppliers in creating two products are very different. That does not prevent the final products from being in the same relevant market if they are good substitutes from the customer's point of view.
40. Dr Williams' evidence on this point confuses the physical meter with the service provided in part through that meter. That service can be provided equally well, so far as the customer is concerned, by the operator who owns the existing installed meter and by the operator who would provide the same service after installing a new meter at the premises. The need for the service on the part of the gas suppliers generates a demand

for gas meters which is satisfied partly by the stock of gas meters which are already installed and providing the service *in situ* and partly by a flow demand for new gas meters which can then be supplied and which will then provide the same service *in situ*. The stock and flow aspect of the provision of gas meters does not create two separate markets.

41. Dr Williams' second argument was that it was not correct to regard n/r meters as competing in the same market as installed meters because the apparent competitiveness of the CMOs' offering only arises because of a distortion in the market. That distortion was the fact that the legacy meters had been installed without an upfront installation charge and were, in 2002, rented under the P&M contracts which allowed them to be replaced without incurring any additional charge. Dr Williams explained this in his first report as follows:

“The normal commercial approach to supplying a Meter is to have a term contract supported by payment completion arrangements, up-front outright sale of the Meter to the customer, or an up-front payment to cover the initial sunk costs combined with some arrangement for the provision of ancillary services. In all of these cases the “economic price” of continuing to consume the services of an already-installed Meter (where “economic price” refers to the payments a gas supplier can avoid by ceasing to use the installed Meter) will reflect the incremental costs of continuing to provide the Meter *after its installation costs have been incurred*. In most instances this price will be well below that of replacing the installed Meter with a new Meter, and the two will not be economic substitutes at any economically relevant margin of choice. The reason why gas suppliers considered an accelerated replacement of Legacy Meters with N/R Meters after deregulation was that normal commercial (and competitive) payment completion arrangements did not exist for National Grid's Legacy Base. ... [F]or precisely this reason the competitive constraints operating on National Grid's Legacy Meter base were fundamentally different from those operating on N/R Meters.” (paragraph 19, emphasis in the original).

42. In his oral evidence he developed this argument (after prompting by the Tribunal) by reference to the “cellophane fallacy”.³ The cellophane fallacy posits that if a monopolist has raised the price of its product sufficiently above the competitive level, a further increase in price may push customers to turn to products which would not have been regarded as substitutes if the monopolist's product had been priced competitively. It would be a mistake in such a case to treat those other products as being in the same relevant market as the dominant company's product. By analogy, Dr Williams argues, distortions present in the metering market (namely the fact that no up-front installation

³ Named after the U.S Supreme Court decision in *United States v Du Pont de Nemours & Co.* 351 US 377, 76 S Ct 994 (1956): see OFT's Guideline on Market Definition (OFT 403) paragraph 5.5.

charge had been paid but the P&M terms still allowed penalty-free replacement of meters) artificially made n/r meters competitive with legacy meters when they would not be in an undistorted market where payment completion had been assured.

43. We do not accept that this point is valid. If all the legacy meters had been installed over the decades under competitive conditions it is certainly not inevitable that every meter would be subject to payment completion arrangements of the kinds that Dr Williams mentions. Users of the meters would have had different attitudes to risk and it is likely that a variety of arrangements would have grown up to accommodate this, as we see in the supply of other long-lived assets. The cellophane fallacy deals with a particular problem where the allegedly abusive behaviour itself might create a distortion in the price elasticity of products inside and outside the relevant market. It is not a general proposition that the Tribunal must try to strip out of its analysis aspects of the market which are not operating in a “normal” competitive way. It will only rarely be useful to base market analysis on an imaginary market which is fundamentally different from the market which in fact exists. In this case, such an exercise is unlikely to lead to a useful result in terms of going on to assess National Grid’s market power at the time of the conclusion of the MSA contracts.
44. Finally on market definition, National Grid raised an issue of supply-side substitutability on the part of electricity metering companies. On analysis, this point was simply that it is easier for companies who are already providing electricity metering services to enter the market for gas metering services. National Grid did not seem to be suggesting that it makes sense to include the *value* of electricity metering services in the market. It is true, as National Grid argued, that the barriers to entry into the gas metering market are lower for a company which is already providing electricity metering services. But as we discuss further below, the experience of the CMOs shows that even for an undertaking with an established electricity metering business, the move into gas metering can be problematic.
45. We therefore reject National Grid’s contention in its Notice of Appeal that there are separate relevant markets for legacy meters and for n/r meters.

46. Several other points were raised by the parties in relation to National Grid’s case on market definition. The Authority argued that there was an inconsistency, which Dr Williams denied, between National Grid’s case on countervailing buyer power, discussed below, and its case on market definition. The Authority also argued that Dr Williams’ acceptance that the logic of his argument meant that each gas meter installed in a house is in its own separate product market showed that his analysis led to absurd and unhelpful results – a conclusion which Dr Williams also denied. Various other points were raised concerning actual and potential in-house supply and whether there are other examples of separate relevant product markets being found in relation to physically identical products. The Tribunal also queried with Mr Turner QC how it helped National Grid’s case to establish the existence of two relevant markets when the conduct complained of took place either in the legacy meter “market” (of which they, as the former monopoly supplier, had a 100 per cent share) or in a closely neighbouring market. We have considered all these points but none of them changes our conclusion set out above.

V. DOMINANCE

47. Dominance has been defined by the European Court of Justice (“ECJ”) in Case 322/81 *Michelin v Commission* [1983] ECR 3461 as:

“a position of economic strength enjoyed by an undertaking which enables it to hinder the maintenance of effective competition on the relevant market by allowing it to behave to an appreciable extent independently of its competitors and customers and ultimately of consumers.” (paragraph 30).

48. The Decision relied on three elements to establish National Grid’s dominance: its high market share, the existence of barriers to entry and expansion and the absence of sufficient countervailing buyer power (“CBP”) to negate market power.
49. In their skeleton argument the Authority submitted that National Grid only puts dominance in issue if we accept National Grid’s case that there are separate relevant markets for legacy and n/r meters. National Grid denied that their challenge was limited in this way. In our judgment National Grid’s case was, putting it broadly, that because of the particular characteristics of this market, its high market share was not a reliable indicator of the existence of market power. We therefore consider that the

arguments on dominance must be resolved even though we have upheld the Authority's definition of the relevant market.

(a) *Market shares*

50. The Decision sets out at paragraph 3.63 a table showing market shares for the provision of installed domestic-sized gas meters in Great Britain. The table shows National Grid as having a 98 per cent share of installed meters in January 2002 falling to an 89 per cent share in January 2007. This table conflates the share of installed meters owned by the meter operators with those operators' shares in the market for the provision of metering services. But it is not suggested that a table showing percentage shares of, say, the value of rentals paid in the relevant years would reveal a materially different picture. National Grid's market shares in the table include meters provided by both National Grid and by UMS (its subsidiary which successfully tendered for some of British Gas's new work). Again it is not suggested that removing UMS's share would make a significant difference to the market shares shown in the table in the Decision.
51. The Authority and the Interveners relied on the well known statements of the ECJ, for example in *Case 85/76 Hoffmann-La Roche v Commission* [1979] ECR 461, to the effect that large market shares are in themselves evidence of a dominant position – the Authority accepted that these market shares were not determinative of dominance but asserted that they were highly indicative and important. The Authority also relies on the disparity between National Grid's market share and the shares of the CMOs. In our judgment, however, in the years immediately after a statutory monopoly has been lifted, one should approach market share figures with caution. Even vigorous and unconstrained market entry is unlikely to result in an instantaneous and substantial reduction of the incumbent's market share from 100 per cent. But such market entry may well mean that the incumbent has little effective market power and is destined to lose market share rapidly in future. We are therefore prepared in the particular circumstances of this case to treat market share as one indicator of market power but as not raising any particular presumption of the existence of dominance. It is an important indicator but it is also important to consider other factors that may cast a different light on the market dynamics.

(b) Barriers to entry and expansion

52. The Decision concluded that the market has characteristics which make entry and expansion on a significant scale very difficult in a short space of time. Possible barriers include National Grid's installed base and position in the market, the expected length of the asset life, the fact that the costs of installing the legacy meters were sunk by the time the Legacy MSA was negotiated, the practical logistics of purchasing and then installing large numbers of meters in domestic customers' premises quickly as well as the need to achieve economies of scale and density to be able to compete effectively.
53. In our judgment the evidence is overwhelming that there are significant barriers to entry and expansion in this market. This is demonstrated most clearly by the difficulties that the CMOs in fact encountered in trying to perform their contracts with British Gas. Those difficulties were described by Mr Neil Avery who gave evidence on behalf of National Grid. He was employed at British Gas from 1985 to 2002 as Head of Metering and Transportation Services and from 2002 to 2005 as their Head of Operational Services. He describes the logistical problems that affected the CMOs in starting up under the contracts awarded to them following the British Gas tender exercise. For example, the start date for Meter Fit was delayed due to data systems problems. Meter Fit was unable to gain access to the meters which it was expected to target for replacement. Mr Avery states that CML also "found going live very challenging" and that OnStream faced operational difficulties to start with. In each case it is clear from his evidence that if British Gas had insisted on holding the CMOs strictly to their contractual obligations, the CMOs may well have been forced to exit the market. Their ability to continue as market entrants depended on British Gas adopting a supportive attitude towards them, in some cases allowing a post-contract increase in the level of the rentals and in one case making a payment of a substantial one-off sum. These problems arose for the CMOs even though, as we discuss further below, the volumes of meter replacement which the CMOs were obliged to undertake were comparatively modest and they were already providing electricity metering services.
54. National Grid's answer to this was that they faced the same barriers as the CMOs in that it is just as difficult for National Grid to gain entry to premises to replace the meter as it is for the CMOs. Indeed, it is clear that UMS/OnStream, National Grid's

subsidiary, also had difficulty in fulfilling its contractual obligations at the start. But that is not, in our judgment, an answer to the point because in default of the meter being replaced, the gas supplier continues to pay National Grid for meter services at that customer's premises using the existing meter. Unless or until a CMO can actually replace the physical meter in the premises, National Grid retains the market share represented by the rentals on that meter.

55. National Grid accepted that economies of scale and of density are important in this market. How this works was described in the witness statement of Mr David Lee on behalf of Siemens. He is responsible for the commercial management of all of Siemens' metering operations across both the electricity and gas markets. He explained how the volume and mix of work available to the meter operator has an impact on operator efficiency, that is on the volume of jobs per day each engineer in the workforce can complete. The costs of employing and managing the workforce represent a large proportion of Siemens' cost base. He says further that subcontractors typically need eight completed jobs a day to be profitable if they are to price on a per job basis. National Grid put forward the evidence of Mr Andrew Spence, Operations Delivery Manager at UMS/OnStream. He described how problems about low density of work can be overcome by improving access rates for policy replacement work through better contact with the end consumer to ensure that someone is in the house to keep the engineer's appointment: in his view "[a] CMO's success lies in ensuring that the customer contact and appointment making process is properly designed and continuously reviewed and improved so as to increase access prospects". Nonetheless in our judgment density of work is an important factor in allowing CMOs to establish and grow viable businesses in this market.
56. National Grid again argued that the existence of the legacy meter base does not give it any particular advantage in acquiring density in its meter fitting operations. This may be so, but the requirement of economies of scale and density are still important barriers to entry from the point of view of the CMOs.
57. Mr Lewis (a former employee of British Gas giving evidence on behalf of CML) described the factors that British Gas looked for when short-listing candidates from the ITT. One important factor he mentions is the bidder's reputation, proven capability and

credentials including its ability to service a contract of the relevant scale. This too is a barrier to entry, albeit one which he was satisfied that the three selected bidders (Meter Fit, OnStream and CML) were able to overcome.

58. National Grid argued that the scale of recent market entry shows that there are no real barriers to this market. In its Notice of Appeal (paragraph 263) National Grid set out a table showing the number of meters fitted in 2005, 2006 and 2007 by each of the meter operators. This shows that (counting UMS as a new entrant and not as part of National Grid's market share) the CMOs have fitted more than half of all new meters in 2005 and 2007 and almost half in 2006. In our judgment, these figures must be treated with caution. First, there is a dispute between the parties as to whether it is right to treat UMS as being a new entrant for this purpose or whether its installation numbers should be combined with those of National Grid. Secondly, there are various factors present in the market which might distort the scale of new entry, for example the existence of the Legacy MSAs themselves (since they affect the overall volume of meter replacement work) and the desire of British Gas to sponsor new entry. This latter factor may have disguised the extent of barriers to entry and distorted the shares of business. We do not consider it is right to interpret these estimates of the shares of meters fitted as showing that market entry has been healthy or unimpeded.
59. There was considerable debate between the economist expert witnesses about whether the existence of sunk costs constituted a barrier to entry. We consider this issue further in the context of countervailing buyer power. Even without this factor, there is plenty of evidence that barriers to entry and expansion exist and have had a significant impact on the initial opening up of this market to competition.

(c) *Countervailing buyer power*

60. In *Hutchison 3G UK Limited v Office of Communications* [2005] CAT 39, the Tribunal described the proper approach to the assessment of countervailing buyer power ("CBP"):

“[T]he right question is not the binary one of whether CBP exists or not. In other words, it is not enough to ask whether there is CBP, and if so to hold that there cannot be [dominance]. CBP is the power of counterparties to offset the powers of the party whose allegedly superior powers are under consideration, and the important question is what degree of CBP is there, and (bearing in mind all the circumstances) does it

operate to a sufficient extent so as to mean that there is no [dominance]? CBP is not an absolute concept in terms of its strength. It is a concept which embodies a possible range of strengths. In any case where it is relevant, the relevant question is likely to be not whether there is CBP or not, but whether there is any CBP, and if so how much and what effect does it have.” (paragraph [110(c)]).

The question to be addressed in this context is thus not just the presence or absence of CBP on the part of British Gas, but the *degree* of such CBP and the extent to which it operated as a constraint on National Grid’s ability to exert market power. National Grid put its case on CBP in two ways. The first argument analysed what happened during the negotiations with British Gas between 2002 and 2004 leading up to the signing of the Legacy MSA. The second argument was a more theoretical argument about the effect of sunk costs on the bargaining power of the parties.

(i) Negotiations with British Gas

61. The case put forward by National Grid focussed on the negotiations between it and British Gas. As British Gas is by far the biggest gas supplier in Great Britain, if they do not have sufficient CBP to negate National Grid’s dominance then none of the other gas suppliers will have. We were taken through a large number of contemporaneous documents including internal minutes of both British Gas and National Grid, correspondence between the two companies and notes of meetings. We also had written and oral evidence from Mr Avery who was involved in the negotiations on behalf of British Gas and Mr Colin Shoesmith who was a key participant in those negotiations on behalf of National Grid.
62. The case presented by National Grid was that the company realised by February 2002 that it faced a serious risk of losing about £600 million of its £1.4 billion investment in meters as a result of the introduction of competition. That figure of £1.4 billion represents the Regulatory Asset Value (“RAV”) on which returns on assets were calculated for the purpose of setting the regulated price cap. Mr Shoesmith says that he attended meetings with British Gas executives in 2002 where the threat was made that “British Gas would simply rip out all of our installed meters as quickly as it could and replace them with cheaper ones”. He says that at a meeting in July 2002 he was “personally threatened” with a five year replacement programme by British Gas. He records that when he went into the negotiations with British Gas over the MSAs, he

thought that British Gas “had the upper hand... British Gas could rip out all of our meters and there was nothing we could do about it”. Mr Avery’s evidence from the British Gas side of the negotiations supported that of Mr Shoesmith, saying that British Gas felt that it was in a strong negotiating position because of the possibility of stranding National Grid’s meter assets. [...] [C]

63. Other people within National Grid seem to have been a little more sanguine than is suggested by Mr Shoesmith in his evidence. In an internal National Grid Board minute of 24 April 2002 the author noted that British Gas can save a substantial amount each year on meter rental because the market entrants’ rental is substantially cheaper than the regulated price of £12.90. But he went on: “practical logistics limit the pace with which these reductions can be achieved across their [...] [C] customers”. With considerable prescience, the author of the minute notes that if British Gas act rationally:

“they should be willing to 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 need for their customers”.

This is precisely what happened.

64. We have seen a note of the 1 July 2002 meeting. This indeed records, as Mr Shoesmith says, that British Gas said at the outset of the meeting that they expected to be able to replace all meters in five years using CMOs. But it also records National Grid’s response which was that, based on their own estimate of comparative rental levels and of how fast meters could be replaced, National Grid “would take the risk that [British Gas] could not replace meters as fast as they say.” It is apparent from the note that, after that opening rattling of sabres on each side, the parties settled down to negotiate terms, British Gas indicating that it wanted to negotiate rental prices on the basis of a commitment of 13 years for DCMs and 5 years for PPMs.
65. An internal National Grid slide presentation on 3 July 2002 does not mention the 5 year threat. One slide notes that the rate at which meters are replaced prematurely is affected by price differentials, meter supply capacity and management and labour resources, apparently concluding that there is “significant uncertainty” about this. This accords with Mr Avery’s evidence that no one knew how fast replacement could take

place because at that time no one had tried to implement a rapid replacement of large numbers of meters.

66. We find that the evidence we have seen and heard falls far short of demonstrating that British Gas had sufficient CBP to negate National Grid's market power to a significant extent. We have been concerned to interpret the contemporaneous documents in the context of what we understand to be the commercial position of the two companies. This approach is more fruitful than simply picking out comments made in internal emails between executives. Overall, the internal National Grid and British Gas documents show that both companies engaged in a careful assessment of their respective options and were able to make a shrewd assessment of the factors and calculations of net present value and costs that were likely to be influencing the other party's stance. This is entirely what we would expect to find between these two substantial and seasoned companies operating in a sector where they have been principal players for many years.
67. It is true that the outcome of the negotiations was an agreement with which British Gas was, and still is, content. It is also true that important concessions were made by National Grid: Mr Avery records in his statement that the British Gas Managing Director regarded the negotiation of the MSAs as a real success. When British Gas walked away from the negotiations when they reached a stalemate in the Autumn of 2002, it was National Grid which came back to British Gas with an improved offer of lower legacy rentals, leading to the conclusion of the Letter of Intent in December 2002. But British Gas did not get their own way on all points: for example National Grid refused to unbundle maintenance even though British Gas appears to have based its ITT proposals on the assumption that the CMOs would be able to maintain National Grid meters. Also, British Gas had initially asked for the glidepath commitment to be limited to 13 years for DCMs.
68. We also accept that National Grid did not succeed in setting rental and PRC levels which resulted in it recovering the totality of its RAV. National Grid argued that this RAV was a good proxy for its sunk costs. Under the Legacy MSAs ultimately signed, even if the gas suppliers had replaced meters at precisely the rate set by the glidepath, the total revenues earned over the 18 years would have fallen short of National Grid's

sunk costs by many millions of pounds. National Grid pressed the fact that they had had to agree a substantial drop in the legacy meter rental in order to achieve a deal with British Gas. But Mr Shoesmith accepted in cross examination that because National Grid were able to offer a price reduction across the board for legacy stock, they expected to be able to agree a rental that was above the level being offered by the CMOs. Further, we agree that this price differential is significant because, as the Authority argued, the correct comparison when assessing the scope of the price reduction is a comparison between National Grid's prices and the CMOs' prices and not a comparison between the Legacy MSA prices and the P&M prices.

69. A key factor in considering the extent of CBP is what options were open to British Gas if the negotiations reached a stalemate. It was not open to British Gas to choose not to rent any meters from National Grid. Each party was a "must deal" partner of the other. The default option for British Gas was to remain on the P&M terms and try to switch out meters as fast as possible with the CMOs. Both parties were well aware of the uncertainties that surrounded such a policy in terms of the logistical challenges that we discussed in the context of barriers to entry.
70. There was an additional factor at play here, namely an understanding on the part of both parties that the Authority would be opposed to the gas suppliers adopting a policy of taking out large numbers of functioning meters in order to take advantage of the CMOs' lower rentals. The Authority's evidence was that this understanding was not in fact a correct reading of their position -- their concern was only with the public reaction if a very rapid and wide scale replacement of fully functioning meters took place. But wherever the idea came from, the contemporaneous documents show that British Gas, like other players in the market, believed it was constrained in how rapidly it could switch out National Grid meters by a perception that the Authority considered that an accelerated programme would raise serious customer disruption issues. National Grid were aware of this factor and were prepared to use it both in its negotiations with the Authority and with British Gas. In a June 2002 internal document setting out National Grid's strategy for negotiating with the Authority, the author stresses that it is expected that both National Grid and the Authority will wish to discourage inefficient replacement of existing meters before the end of their useful lives and reduce potential disruption for consumers that may result from accelerated replacement programmes.

National Grid's 9 October 2002 slide presentation to British Gas lists as one of the risks to British Gas of not doing a deal that British Gas "will be the only major player prematurely replacing meters".

71. The third important factor is that the evidence shows that British Gas was not a particularly price sensitive customer going into the negotiations with National Grid. First, Mr Avery says in his statement that the business case for British Gas awarding CMO contracts did not anticipate that there would be *any* reduction in rentals for legacy meters. It was based entirely on there being a substantial difference between the P&M price and the CMOs' rental prices and a gradual cost saving by replacement of National Grid meters with cheaper CMO meters. The ITT that was issued by British Gas in 2001 sought tenders for installation of only about one third of the number of existing meters – and that included new installations as well as replacement of legacy meters. In other words, even though British Gas expected at that point (a) to continue to pay the regulated P&M rental on all legacy meters and (b) that CMO rentals would be cheaper, it still sought tenders on the basis that it would spread replacement of its legacy meters over 13 to 15 years. On this basis *any* reduction that British Gas negotiated from National Grid in respect of legacy meter rentals was a bonus rather than an essential element of the viability of their business plan. National Grid must have recognised that British Gas's ITT signalled that British Gas contemplated paying the P&M rental on large numbers of meters for a considerable period. Any improvement that National Grid was prepared to offer on this position was likely to be welcomed by British Gas.
72. Further, Mr Avery explains that British Gas realised that there were in fact disadvantages to the company if the National Grid rentals came down too low. The disadvantages were twofold. First, a very low National Grid price would make it difficult for CMOs to enter the market. As Mr Avery says, British Gas saw "benefits in keeping three players in the market" and so wanted to retain a margin within which the CMOs could operate viable businesses. Secondly, British Gas understood that National Grid, because of its regulatory non-discrimination obligations, would have to offer whatever level of legacy rental it agreed with British Gas to all other gas suppliers. By contrast a low price negotiated with the CMOs would not have to be offered to other gas suppliers. There was no competitive advantage in the retail market for British Gas in pushing the National Grid legacy rental price down. As Mr Avery put it:

“The price agreed was not as low as we would expect to get under the CMO contracts but that suited us. Having decided that we were going to purchase our meter provision on a competitive basis we would not have wanted to abandon the competitive process. Any price that National Grid offered us for its meters would also be offered to other gas suppliers which would have eroded some of the competitive advantage to us in the low CMO prices that we had negotiated. Some differential between the CMO price and the National Grid price was therefore good. It would have been very difficult for us contractually if National Grid had gone down as low as the CMO level...” (paragraph 33 of Mr Avery’s witness statement).

73. These factors indicate that the fact that British Gas was and may still be content with the terms of the Legacy MSA does not establish that those terms are not anti-competitive. British Gas’s interests do not necessarily coincide with those of the CMOs, or with those of the end consumer, or with those of the Authority.

(ii) The relevance of sunk costs

74. National Grid’s second argument was that the competitive conditions affecting the bargaining position of a supplier of a gas meter differ profoundly depending on whether negotiations take place before or after the sinking of cost. Dr Williams on behalf of National Grid argued that the existence of sunk costs put National Grid in a weak bargaining position if its aim was to recover as much of its sunk costs as possible. It was the victim of what economists refer to as the “hold up” problem (in the sense of a robber “holding up” a bank) because the party which has sunk its costs is at the mercy of the other party if it is to get any revenue to offset the unrecovered cost of its investment. The position was very different with regard to new or replacement meters where the negotiation over rental terms took place before the costs had been sunk, that is before the meter had been installed. Although it is the case that as soon as a new meter is installed, its costs of installation are sunk, this does not matter because the terms on which that meter is rented are still the terms that were negotiated at the point when the costs of installing it were not yet sunk.
75. Professor Paul Grout on behalf of the Authority saw the matter differently. Professor Grout is the Professor of Political Economy and Head of the Department of Economics at Bristol University. He explained that a company which has incurred customer specific sunk costs will be incentivised (in response to a competitive threat) to reduce its prices to the level of its marginal costs in order to ensure that it earns at least some on-going revenue. Some money is, after all, better than none. Because competitors and

potential market entrants realise this, they will be deterred from competing if they have not already sunk their own costs. Thus, in a market such as this where marginal costs are very low, market entry may be deterred because potential entrants see that there is a risk of aggressive post-entry pricing by the incumbent seeking to protect its revenue stream. Thus the existence of sunk costs and their deterrent effect on new entrants may have the effect of increasing the *de facto* bargaining power of the incumbent supplier.

76. We do not consider that either of these models really explains what was likely to happen in this market. This was not a “hold up” problem because British Gas (the “holder up” in this scenario) had to have *some* arrangement with National Grid to pay for the legacy meters. It could not simply stop using the meters without also exiting the retail market. It did not have the option of moving instantly to the CMOs because of the factors we have considered earlier.
77. Conversely, the CMOs were able to protect themselves from possible post-entry aggressive pricing by concluding five year exclusive contracts for their particular geographic region, with British Gas promising a minimum volume of work. As we have mentioned earlier, Mr Avery’s evidence is that British Gas’s policy was to sponsor market entry by the CMOs since it saw this as being in its long term interests. Mr Paul King, giving evidence on behalf of Meter Fit, describes how the Meter Fit contract contained a volume floor of [...] per cent such that should British Gas not be able to provide sufficient volumes to meet Meter Fit’s requirements, Meter Fit would be “kept whole” by British Gas making a volume shortfall payment to Meter Fit. As Mr King put it: “[t]his floor limited Meter Fit’s exposure to factors affecting provision and installation of volumes outside its control”. When the CMOs got into difficulties in the start up period of their contracts, British Gas renegotiated their terms with the result that they were able to continue in business.
78. The existence of sunk costs may have influenced the nature of the contracts between the CMOs and British Gas. But the principal relevant features of those contracts were set out in the ITT issued by British Gas before the negotiations over the legacy meters started. We have not seen evidence to suggest that the theoretical possibility that post-entry aggressive pricing may have a deterrent effect on market entry actually played any part in the negotiations of the Legacy MSAs.

(d) The relevance of the P&M terms as a default option for the gas suppliers

79. National Grid argued that the regulated terms and conditions under the P&M contract acted as a backstop or default position which was always available to the gas suppliers when they were negotiating arrangements for the legacy meters with National Grid. Since those terms and conditions, including the rental, were set by the regulator in 2002, it can be assumed that they are not abusive. National Grid was therefore unable to impose abusive terms and conditions (whether exploitative or exclusionary) on the gas suppliers because they could simply choose, as EdF did, to stick to the existing P&M terms. This, Mr Turner submitted on behalf of National Grid, “neutralised, drew the sting from the ability to extract disadvantageous terms”.
80. We do not consider that the existence of the price cap in this case negates the existence of market power. We agree with the Authority that it is not necessary in all cases of alleged abuse for the regulator to establish that the putative dominant firm has the ability to maintain prices appreciably above the competitive level – indeed National Grid accepted that this was true. The Office of Fair Trading’s *Guidelines on the Assessment of Market Power* (OFT 415, December 2004) state that market power can exist even where there is economic regulation because even price capping “may still allow for the undertaking profitably ... to engage in exclusionary behaviour of various kinds” (paragraph 6.7). In the present case, which does concern an alleged exclusionary rather than exploitative abuse, the Authority certainly does not need to establish that National Grid can raise prices above the competitive level. In addition, caution must be exercised when considering whether a regulatory constraint can be relied on as negating market power: see *Hutchison 3G UK Limited v Office of Communications* [2005] CAT 39 and *Hutchison 3G UK Limited v Office of Communications* [2008] CAT 11 which both concerned alleged significant market power in the market for mobile call termination. In the present case therefore, the P&M terms cannot be relied on to negate any dominance that National Grid has in this market.
81. In the light of this finding in relation to the relevance of the price cap, it is not necessary for the Tribunal to resolve the various other issues explored by a number of witnesses about whether the RAV used by the Authority in setting the 2002 price cap is

or is not a useful proxy for the value of National Grid's sunk costs (a point that cropped up in a number of other contexts). Neither is it necessary to consider whether the 2002 price cap is a better indicator than the CMO prices of what is an "efficient" price or a "competitive" price at any given time nor whether gas suppliers were influenced by a concern that the price cap reflected in the P&M terms might be lifted during the currency of the Legacy MSA.

(e) Conclusions on dominance

82. We therefore conclude that National Grid was dominant in the relevant market, as defined by the Authority, at the time it negotiated and entered into the MSA contracts.

VI. ABUSE

83. The classic description of an abuse contrary to Article 82 EC is found in the *Hoffmann-La Roche* case cited earlier (paragraph [51]):

"The concept of an 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" (paragraph 91).

84. The Authority and the Interveners emphasised the case law of the ECJ referring to the "special responsibility" of a dominant firm not to engage in conduct which damages competition in the market which is already affected by its dominance: see for example paragraph 57 of the ECJ's judgment in *Michelin* cited earlier (paragraph [47]).

85. In the Decision the Authority concluded that:

(a) The MSAs impose significant switching costs on gas suppliers who wish to replace a larger number of meters than is allowed without penalty under the glidepath. The early replacement charges in the Legacy MSAs are triggered by modest levels of meter replacement;

- (b) The BLRs paid for meters that have been removed take no account of avoidable costs and the suppliers' ability to leave the Take or Pay zone is constrained by future non-discretionary replacement requirements (that is policy replacements and CREs);
- (c) The level of the PRC in the first year of the Legacy MSA, £57 per meter for DCMs, is high relative to the commercial benefits that gas suppliers would expect to obtain by switching to a cheaper CMO and will reduce their incentive to switch;
- (d) The bundling of meter maintenance by National Grid exacerbates the effect of the Legacy MSA provisions because meters replaced on a maintenance visit are replaced by National Grid rather than the CMO and count against the "free" allowance under the glidepath. But in the absence of other restrictive factors of the MSAs, the requirement to take maintenance from National Grid would not of itself appreciably restrict competition and so is not a separate abuse;
- (e) The Legacy MSAs have had an *actual* foreclosing effect on competing CMOs;
- (f) The Legacy MSAs have deprived customers of the benefits of competition in terms of lower prices and reducing or removing the incentives on suppliers to improve technology and introduce smart meters.

86. The Authority therefore concluded that the MSAs have the actual and likely effect of foreclosing competition within the relevant market. They are long term contracts that limit significantly the commercial benefits that gas suppliers and customers could obtain if there was more effective competition in the market and suppliers could switch to CMOs without incurring artificially high switching costs.

87. Critically, the Authority recognised that the use of early replacement charges may be necessary and proportionate to allow for the recovery of customer specific sunk costs such as the cost of the installation of the meter. But the Authority's conclusion was that

the Legacy MSAs were not a necessary or proportionate means of recovering those costs. First, the Authority found that the rentals payable in the Take or Pay zone do not reflect a reasonable estimate of National Grid's avoided costs (given that the company is no longer required to maintain or provide other services in relation to the meter). Secondly, the Authority found that a different contract structure linking charges payable on early replacement to the age of the meter would have protected National Grid's position but would have been cheaper for the gas suppliers. This latter point relates to extensive expert evidence and argument over whether the age-related counterfactual should have been "revenue neutral": see paragraphs [135] onwards, below.

(a) What is "normal competition" in this market?

88. As we have mentioned, the Authority accepted that in a market where long lived assets are installed in customers' premises and where those assets have minimal re-use value if removed, it is legitimate for meter providers to protect itself against the stranding of those sunk costs if the customer decides to replace the asset with that of a competitor. In its Defence the Authority said that it remains its case that in normal competition a meter operator might adopt various methods to achieve this including upfront payment, cancellation charges, or adjusting the rental prices.
89. National Grid argued that the Authority had to establish that the Legacy MSAs constituted "recourse to methods different from those which condition normal competition" before it could establish that they were abusive. In this market, the Authority had accepted that it was "normal", given the nature of the assets, for operators to put some form of premature replacement protection in place in their contracts. No deviation from "normal competition" had been established by the Authority and hence there was no abuse within the meaning of *Hoffmann-La Roche*.
90. We do not accept that this is the correct way to interpret what the ECJ said in *Hoffmann-La Roche*. "Normal competition" there means the parameters which affect a customer's choice in a situation where the customer is free to choose from amongst the products which make up the relevant market. In conditions of normal competition, a buyer will base his purchasing decisions on his assessment of who offers the best price and the best quality product or service. He might, on the basis of these criteria, choose the dominant firm's product and thereby maintain or increase the dominant firm's

market share. That does not involve an abuse because the dominant firm has won that business because its product is the better overall offer from the customer's point of view. If the customer subsequently discovers that another company offers a better, cheaper product he will switch his custom to the new supplier – he may switch back again if the dominant undertaking then improves its offer.

91. Any form of contract which ties the buyer to continuing to trade with a particular undertaking, even if a competitor appears on the market offering a better, cheaper product or service, inhibits the competitive process to some extent. There may be entirely proper justifications for such contracts and they do not always have anti-competitive effects. But they are still capable of being abusive if entered into by a dominant firm because that firm has a special responsibility not to impede whatever competition takes place on the market.

92. All *Hoffmann-La Roche* indicates is that a dominant firm is free to compete vigorously on price and quality and similar parameters. As DG Competition put it in the 2005 *Discussion paper on the application of Article 82 of the Treaty to exclusionary abuses*:

“the purpose of Article 82 is not to protect competitors from dominant firms' genuine competition based on factors such as higher quality, novel products, opportune innovation or otherwise better performance, but to ensure that these competitors are also able to expand in or enter the market and compete therein on the merits without facing competition conditions which are distorted or impaired by the dominant firm”.
(paragraph 54)

93. We therefore do not accept that the Authority's recognition that some form of premature replacement charge would feature in this market under conditions of normal competition rules out a finding that this contract is an abuse. The issue in this case is not whether *any* payment protection arrangements could be justified where a long-lived rented asset is installed without an upfront transaction charge. It is accepted on all sides that such arrangements are legitimate or normal. The question in this case is whether the Legacy MSA goes too far in protecting National Grid from the consequences of competition and whether the agreement's foreclosing effect is too severe to be justified by National Grid's desire to protect the revenue stream generated by its meters.

(b) *The economic effect of the Legacy MSAs*

94. There was some debate, in particular between CML/Siemens and National Grid about whether arguments about the advantages and disadvantages of the Legacy MSAs should be considered in the context of assessing whether there was anti-competitive foreclosure or in the context of considering whether any such foreclosure was objectively justified. Both National Grid and the Authority appeared content to deal with them under the former heading and neither of them submitted that anything turned on this. We therefore consider the points in the manner presented by the Appellant and Respondent.

95. Before delving into the detail of the parties' arguments it is important to analyse the nature of the Legacy MSAs and the effect they are likely to have on competition. The European jurisprudence on Article 82 has for many years stressed that an abuse can be committed where a dominant undertaking engages in any behaviour which forces or encourages customers to buy a certain proportion of their requirements from it. Thus in *Hoffmann-La Roche* the Court of Justice stated that where a dominant undertaking ties purchasers, even at their request, to obtain all or most of their requirements from that undertaking, that will be an abuse. The same applies if the dominant undertaking adopts a system of fidelity rebates which have the same effect, again, even if the loyalty obligations are imposed at the buyer's request. The leading case of *Michelin* (cited at paragraph [47] above) explains that the mischief of the loyalty rebate scheme condemned in that case arose because the scheme was:

“calculated to prevent the dealers from being able to select freely at any time in the light of the market situation the most favourable offers made by the various competitors and to change supplier without suffering any appreciable economic disadvantage. It thus limits the dealers' choice of supplier and makes access to the market more difficult for competitors. Neither the wish to sell more nor the wish to spread production more evenly can justify such a restriction of the customer's freedom of choice and independence” (paragraph 85).

96. In Case C-95/04 P *British Airways v Commission* [2007] ECR I-2331 the ECJ considered whether the bonus arrangements offered by British Airways could produce an exclusionary effect “that is to say whether they are capable, first, of making market entry very difficult or impossible for competitors of the undertaking in a dominant position and, secondly, of making it more difficult or impossible for its co-contractors to choose between various sources of supply or commercial partners.” (paragraph 68). Having concluded that the bonus arrangements were capable of having such an effect,

the Court said that one then needs to examine whether there is an objective justification for the bonus scheme - thereby acknowledging that even a scheme which does “produce an exclusionary effect” may avoid being characterised as abusive in certain circumstances (paragraph 69).

97. The Legacy MSA operates in the same way as a contract which obliges the customer to take a certain percentage of its requirements from the dominant undertaking. Indeed, Mr Turner confirmed that National Grid fully accepted that the Legacy MSAs discourage gas suppliers from replacing the legacy meters with new meters rented from a CMO or under the N/R MSA at levels higher than those allowed free of penalty (Transcript, Day 2 pp. 8 – 9). As he put it in his opening submissions at the hearing, National Grid’s aim was “to bargain to keep its installed meters in place while they functioned perfectly well, [and] to try to get back as much of its sunk costs as it can” (Transcript, Day 1, p.16). The Legacy MSAs therefore have the same kind of economic effects as the ECJ described in the *Michelin* case.

98. It is also important to recognise that the Legacy MSAs are not a cost recovery arrangement but a revenue protection arrangement. In other words, the amount of the early replacement charge payable under the Legacy MSA is not related to the difference between the initial cost of installing that meter and the amount of rental that has already been paid for that meter. Rather, because of the way that the PRCs are calculated, it relates to the difference between the amount of rental that would have been paid if the customer had continued to rent the number of meters set by the glidepath and the amount of rental that will actually be paid given the number of meters removed. In other words the payment that is “completed” is the payment of future rentals, not the payment of past installation costs. National Grid’s case is that, nonetheless, the contracts are legitimate because the revenue guaranteed by the Legacy MSA falls far short of the RAV which it regards as a good proxy for its unrecovered sunk costs aggregated over the whole of the legacy meter installed base. The key question for the Tribunal is whether the Authority was right to conclude that the foreclosure effect arising from the Legacy MSA was too severe to be justified by National Grid’s admittedly legitimate interest in ensuring that it was able to recoup some of the costs that it had incurred in installing the legacy meters.

(c) A comparison of the PRC with the annual rental for DCMs and PPMs

99. The Decision measured the foreclosing effect of the Legacy MSAs in different ways. The first was simply to compare the size of the PRC with the benefit that the gas supplier would expect to obtain from switching to a cheaper CMO. The PRC for a DCM was taken by the Authority to be £57 per meter in the first year of the Legacy MSAs. This is high relative to the annual saving that a gas supplier could expect to make on the rental payable for the meter if it incurred that PRC and installed a CMO's meter, given that annual rentals for DCMs were about £11 in 2003. We agree that this comparison supports the Authority's conclusions on abuse because the cost incurred if the gas supplier has to pay a PRC on a meter is so high that it is likely to be more than the savings the gas supplier can expect from renting a cheaper CMO meter.
100. So far as PPMs were concerned, the Authority did not compare the first year's PRC (which the Authority took to be £37) with the annual rental for a PPM but with the average cost of purchasing and installing a new or refurbished meter. The Authority appears to have accepted that at the £37 level, it is not the case that the PRC is likely to exceed the present value of the savings available from swapping to a CMO meter. But the Authority referred to the fact that National Grid had announced that it intended "re-balance" its DCM and PPM charges resulting in an increase of the PRC for PPMs to £78 for the year 2005/06. National Grid argued that it was no longer in fact intending to re-balance the PRCs and that it has not done so. We accept that it would not be fair to rely on this proposal to "re-balance" when making this comparison. We do not read the Decision therefore as drawing any conclusion on foreclosure effect from a simple comparison of the first year PPM PRC with either PPM rentals or cost of installation.

(d) The level of charges incurred by an accelerated replacement programme

101. The second way in which the Authority measured the costs that the Legacy MSA provisions imposes on gas suppliers was to work out how much a gas supplier would have to pay National Grid if it exceeded the glidepath. We had evidence on this from one of the Authority's expert witnesses, Mr Tim Keyworth, an economic consultant specialising in the assessment of regulatory and competition policy. He was instructed by the Authority during its investigation and was involved in the analysis of abuse that was presented in the Decision.

102. Mr Keyworth's calculations are based on figures arrived at by aggregating the total number of meters that are covered by all the Legacy MSAs entered into with the gas suppliers who signed them. In total the population of DCMs covered (or treated as covered) by Legacy MSAs as at 1 January 2004 was 17.56 million and the opening population of PPMs was 1.9 million. This means that the penalty-free allowance under the glidepath across all gas suppliers who had signed a Legacy MSA is about 980,000 DCMs per year (1/18th of the opening total) or 81,000 per month. For PPMs the penalty-free allowance under the glidepath was about 279,000 per year or approximately 23,000 per month.
103. As regards DCMs, the Decision posited a situation where a gas supplier decides to replace more meters than are allowed for free under the glidepath. In the first scenario the gas supplier decides, in each of the first three years of the contract, to replace 50 per cent more DCMs than the glidepath allows. That would result in it replacing about 1.5 million additional DCMs (about half a million each year) and would take the gas supplier into the Take or Pay zone but would not incur any PRCs. In the second scenario the gas supplier decides to replace 65 per cent more DCMs than the glidepath allows for in each of the first three years of the contract. This would result in replacing about 2 million extra meters and would take the gas supplier beyond the Take or Pay zone into the payment of PRCs.
104. When calculating the total cost to the gas supplier under both these scenarios one must bear in mind that a BLR may be payable in years beyond the year in which the meter is actually removed. This will depend on whether the gas supplier returns to a position at or above the glidepath commitment in subsequent years. In order to calculate the likely cost of removing 50 or 65 per cent more meters over the first three years, some assumptions have to be made about levels of replacement after the three years to see how quickly the gas supplier would return to the glidepath and cease to be liable to pay BLRs. The assumption made by Mr Keyworth was that after the three years, the gas supplier would only replace meters which were non-discretionary meters. Further, it was assumed that there would be 850,000 of these non-discretionary DCM replacements each year. Finally, the rental and PRC levels used in the calculation were taken from the Legacy MSA.

105. Applying the Legacy MSA terms to the two scenarios and making those assumptions about the speed of return to the glidepath after the first three years' excess replacement, the Authority concluded that the total cost of replacing 50 per cent more DCMs would be £87 million. This makes the average charge for each of the 1.5 million meters replaced about £60. Under the second scenario the total cost would be £124 million amounting to about £65 per DCM.
106. Mr Keyworth also calculated the marginal cost of replacing a meter, making the same assumptions about the number of non-discretionary DCM replacements after the first year in which the glidepath is exceeded. He calculated that the marginal cost of replacing an additional meter in year 1, after 520,000 additional meters in excess of the glidepath allowance had been replaced in that year, would be about £50 per meter (taking the annual rental to be £10).
107. Mr Keyworth concluded that the average and marginal cost calculations provided "compelling evidence" that the costs of replacing more meters than allowed by the Legacy MSA glidepath could, at the start of the contract, have been expected to give rise to early replacement charges that increased very rapidly. These charges were very high relative to the overall cost of DCM provision (about £11 per year) and were incurred in response to only relatively modest additional levels of replacement.
108. The same exercise was carried out for PPMs although this was limited to the first scenario – the replacement of an additional 50 per cent more than the free PPM replacement provided for by the glidepath in the first three years. On the basis of the PRC levels set in the Legacy MSA the Authority calculated that the cost in the first scenario amounted to over £19 million. This was equivalent to an average cost per additional PPM replacement of around £46. In Annex 4 to the Decision where the Authority set out its calculation for PPMs it acknowledged that PPM replacement is not likely to result in a long period in the Take or Pay zone because the gas supplier's ability to return to the glidepath is not impeded by having to undertake policy replacements. The Authority concluded from this in paragraph 4.80 of the Decision that the impact of the provisions on the costs to a supplier of replacing more PPMs than scheduled by the glidepath "is likely to be less pronounced than is the case for the DCMs". National Grid invited us to hold that there was no finding of foreclosure in

relation to PPMs. We disagree. The finding was that there was still foreclosure but that it was not as severe than was the case for DCMs. In other places where the Authority concludes that there is no finding of abuse (for example in relation to a separate abuse of maintenance bundling) the Decision states this expressly. We do not read paragraph 4.80, or the Decision as a whole, as deciding that foreclosure was limited to DCMs.

109. National Grid criticised a number of aspects of this calculation of average and marginal costs of exceeding the glidepath. First they attacked the realism of the 50 per cent and 65 per cent excess scenarios. They referred to quotations from the internal contemporaneous documents of the gas suppliers which indicated that they thought that the Legacy MSA glidepath allowed them to carry out a replacement programme as rapidly as they had intended. It was unrealistic, National Grid argued, to posit that in the absence of the Legacy MSAs the gas suppliers would have wanted to replace substantially more meters than they were allowed to do, penalty free, under the glidepath.

110. There was some debate before us as to where the 50 per cent and 65 per cent figures had come from. The Decision states (paragraph 4.73) that the 50 and 65 per cent scenarios are reasonable in relation to the actual levels of replacement that British Gas had contracted for ahead of signing the Legacy MSAs. National Grid argued that this was not true and that these levels of replacement were based on inaccurate estimates made by the Authority. In its supplementary submissions, the Authority accepted that some of these criticisms were justified. Using more recent data and the more detailed approach that National Grid had advocated, the Authority recalculated its “best view” of the initial CMO volumes as a percentage of the glidepath allowance in 2004 to 2007 and came to figures which were broadly the same as those included in paragraph 4.73 of the Decision.

111. National Grid also argue that, if the scenarios were based on the figures in British Gas’ ITT, this was not a fair comparison because those figures were proposed by British Gas before negotiations on the Legacy MSAs started. Those figures were therefore what British Gas thought it would replace if it remained on the P&M terms with **no** payment completion terms. They were not a fair indication of the level of replacement that British Gas would want to undertake if it were subject to lawful payment completion

terms different from those alleged to be abusive. The proper comparison was as between the replacement levels under the Legacy MSA and the replacement levels under a hypothesised alternative lawful payment completion arrangement.

112. Our conclusion on this point is as follows. It is essential when assessing the effect of the early replacement charges in the Legacy MSA to work out how expensive it is for a gas supplier to replace more than the glidepath allowance. Because of the existence of the BLRs this exercise has to be more complicated than simply comparing the PRC with the cost of the meter (though the Authority also relied on that comparison in relation to DCMs). That is why the Authority used the 50 per cent scenario (which only incurs BLRs) as well as the 65 per cent scenario (which incurs both BLRs and PRCs).
113. We do not accept the argument that the Authority ought to have worked out what would be the likely increase in replacement volumes comparing the Legacy MSAs with a lawful payment completion arrangement. That was not the purpose of this exercise. The cost comparison between the Legacy MSA and an alternative payment completion arrangement was carried out using the age-related counterfactual and is discussed below. We do not consider that the 50 per cent and 65 per cent scenarios are unrealistic or that the Authority should have assumed that the gas suppliers would not have replaced more than the glidepath amounts if they had been free to do so. National Grid was certainly not prepared to take the risk that gas suppliers would replace only a very limited numbers of meters. The main driver behind the design of the Legacy MSAs was National Grid's anxiety that British Gas might well replace more meters than the glidepath – even possibly replacing all their legacy stock over five years.
114. National Grid referred to the fact that in the years leading up to the introduction of the MSAs, National Grid replaced around 900,000 DCMs a year on average and about 200,000 PPMs. National Grid described this rate of replacement as the “organic natural pattern of replacement”, arguing that it was unlikely that gas suppliers would want to replace so many more meters in the first years of the contract (Transcript, Day 1). Any faster replacement would be “the inefficient and wasteful replacement of good working meters” as Dr Williams put it (paragraph 116 of his second witness statement). But in our judgment it is not right to assume that gas suppliers would or should have remained

content to limit replacement to those levels once competitors entered the market offering substantially cheaper rentals. Neither is it right to characterise such replacement as wasteful or inefficient. That would be to assume that the introduction of competition would or should have no effect on the scale of National Grid's business. In our judgment there was nothing improper or unrealistic about the 50 per cent and 65 per cent scenarios that the Authority used in this part of its analysis.

115. National Grid's second complaint was the reasonableness of the assumption that there would be 850,000 DCM non-discretionary replacement meters each year. This assumption increases the cost incurred by the excess replacement in the first three years because it delays the point at which the gas supplier returns to the glidepath and ceases to be liable to pay BLRs. Mr Keyworth explained where the assumption came from. He analysed the volume of non-discretionary replacements (that is, policy replacements maintenance replacements and functionality changes) in fact undertaken for DCMs in the first three years of the Legacy MSA and found that it was about 850,000 per year. For PPMs there were generally no policy replacements so the number of non-discretionary replacements was much smaller (limited to CREs and maintenance replacement). The average cost calculations for PPMs therefore did not take into account non-discretionary PPM replacements.

116. Mr Keyworth's assumptions appear to us to be entirely justified and indeed favour National Grid in assuming that the only replacements that the gas supplier makes after the first three years are the 850,000 non-discretionary DCM replacements. We reject National Grid's argument that the Authority should have taken into account that the company had changed its policy replacement criteria as from April 2008 resulting in a steep fall in the number of policy replacements and hence an increase in the number of free discretionary replacements available to the gas suppliers. The important question is what cost calculations would gas suppliers have made when planning their replacement strategy in the first three years. At that time there was nothing to suggest that the number of policy replacements was going to fall.

117. National Grid's third criticism was that it was wrong to focus on the first three years in assessing the foreclosure effect of the Legacy MSAs. The Authority recognised that (see the Decision paragraph 4.166) it could be argued that the Legacy MSAs envisaged

that all DCMs legacy stock could be replaced by CMOs over an 18 year period without incurring charges and the age-related counterfactual envisaged that all stock could be replaced without charge over a 20 year period. National Grid also argued that the CMOs had, in fact, been able to establish viable businesses in the first three years of the Legacy MSA. But the Authority rejected the idea that this meant that the Legacy MSA was no more foreclosing than the age-related counterfactual. We agree with the Authority that it does matter that the Legacy MSA pushes more replacement into later years than would be the case under the age-related counterfactual because by that time competition may have been stifled through earlier market foreclosure. An agreement which restricts the introduction and expansion of competition immediately after the lifting of a statutory monopoly has a serious foreclosing effect even if competition might be less restricted in future years.

118. In our judgment, the exercise carried out by the Authority to calculate the marginal and average cost of exceeding the glidepath was a legitimate one and was carried out fairly. We find that it supports the conclusions that the Authority drew from it.

(e) The use of counterfactuals

119. The third method relied on by the Authority to assess the effect of the Legacy MSA provisions was to compare the costs of carrying out a given replacement programme under the Legacy MSA with the cost of carrying out the same programme under one or more counterfactuals. The main counterfactual used in the Decision was an age-related one; that is a contract in which the size of the early replacement charge was smaller for older meters than for younger. National Grid accepted the validity of using counterfactuals to assess the foreclosure effect of the Legacy MSA. Indeed it was their case that a relevant counterfactual was an essential element in establishing the existence of an abuse under Article 82. But they objected to the counterfactual used by the Authority.

(i) The age-related counterfactual in the Decision

120. The Authority noted in the Decision that the provisions of the Legacy MSA differ markedly from the provisions regarding early replacement of meters found in the CMO contracts and in National Grid's own N/R MSAs. Importantly, the Decision says,

under the CMO contracts and the N/R MSAs, the early replacement charges payable will depend on the characteristics of each specific meter that is replaced, notably the age of that meter. Under the CMO contracts and under the N/R MSA, the level of early replacement charges a gas 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 over 10 years for PPMs.

121. The Decision then said this about the use of the counterfactual:

“As they are the contractual form used by CMOs, UMS and [National Grid] 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 [National Grid] 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 [National Grid] meters before the end of their useful life. ... [National Grid’s] dominance in this market makes it difficult to identify an example of “normal” competition and the Authority does not consider that the CMO contracts necessarily represent the benchmark for normal competition in the domestic gas metering market.” (paragraph 4.89, emphasis in original, footnote references omitted).

122. The counterfactual used in the Decision compared the effect of an age-related scheme with the Legacy MSA as regards the replacement of DCMs. It did not cover PPMs. The Authority first compared the treatment of *non-discretionary* replacements of DCM meters less than 20 years old under both the Legacy MSAs and the CMO contracts. They found that under the Legacy MSAs, the supplier would be able to make all non-discretionary replacements without incurring charges because the glidepath allowance was high enough to cover this. Under the CMO agreements, policy replacements and other replacements of faulty meters were also free from penalty, regardless of the age of the meter. But under the CMO contracts and the N/R MSAs a transaction charge is payable for functionality exchanges. Under the CMO contracts this charge is generally fixed for the initial period of the contract (5 to 7 years) and then declines on an age-related scale. Under the N/R MSA it is a fixed amount irrespective of the age of the meter. The Decision records that the Authority calculated that if gas suppliers had had to pay age-related PRCs for CREs, the total PRC payment over 3 years would be £21.1 million. National Grid’s calculation of the same sum came to £37 million.

123. Turning to a comparison of the costs of *discretionary* replacement of DCMs under the age-related approach, the Decision sets out as at 2004, how many legacy DCM meters fell into one year age bands showing that, for example, 821,000 legacy DCMs were more than 20 years old, 424,000 were 19 – 20 years old, 493,000 were 18 – 19 years old etc. They also set out the age-related PRC which would have been payable in 2004 for any meter removed in each age band. These age-related PRCs were derived from National Grid’s calculations of the averaged PRC level for 2004 with some adjustment to take account of a higher level of avoidable costs than National Grid had included. The same information about the age profile of the DCM legacy stock was set out in a histogram as Figure 1 in the Decision. This showed that the numbers of meters which would reach the age of 20 or more years during the first three years of the contract was not particularly high compared with the numbers of meters in the other age bands.
124. The Authority then went back to consider the first scenario it had posited when working out the cost of exceeding the glidepath, namely a gas supplier who replaces 50 per cent more meters than is allowed on the glidepath. This scenario is equivalent to the gas supplier replacing about 4.4 million meters over three years (that is three years of glidepath allowance of 980,000 meters plus three years of an additional 500,000 meters per year). About 2 million of this 4.4 million would be accounted for by non-discretionary exchanges⁴ leaving 2.4 million discretionary replacements over the three years, or 0.8 million DCMs per year. The Authority concluded that the age structure of the DCM meter population is such that even if suppliers decided to replace all the 2.4 million meters *in the first year* rather than over three years, the highest early replacement charge that they would incur for any meter would be about £26 and the charges averaged over all the meters replaced would be about £13 for each additional DCM. This compares with the average charge of £60 under the 50 per cent scenario applying the Legacy MSA provisions as described earlier.
125. Mr Keyworth acknowledged that no account was taken of access and density issues in this comparison, that is to say, as to whether it would be feasible for a gas supplier actually to expect his meter operator to take out meters strictly in order of their age

⁴ This figure was arrived at taking the earlier assumption of 850,000 non discretionary replacements each year and adjusting it to remove those DCMs which could have been expected (absent replacement) to be less than 20 years old at the end of the third year of the Legacy MSAs.

profile in order to take advantage of the age-related PRC structure. The calculation assumed that the gas suppliers would be able to replace about 80 per cent of all the 16 to 17 years and older meters if they were targeted. If this were not possible, higher PRCs would have to be incurred on some replacements of younger meters. This is potentially significant because, according to National Grid, the older meters are evenly spread throughout the country rather than clustered in particular locations. This appears to be borne out by the experience of Meter Fit when it entered the market. Meter Fit's contract required it to focus on replacing meters that were over 20 years old but Meter Fit found that there was insufficient density of such meters to enable it to carry out its business efficiently. The age constraint had gradually to be relaxed to allow them to replace 12 year old meters in order for their business to remain viable.

126. However, Mr Keyworth concludes that even if the gas suppliers were unable to target all the oldest meters, the average cost of the additional replacements would not be a great deal higher than the £13 figure. In other words, the gap between the average cost under the age-related counterfactual and the Legacy MSA is so great that even if quite a few younger meters had to be replaced in order to give an adequate density of operations to the CMO, the age-related counterfactual would still be significantly cheaper for the gas supplier than the Legacy MSA.

127. Mr Keyworth reiterates that the exercise the Authority carried out favours the Legacy MSAs because it calculates the cost to the gas supplier under the age related counterfactual of replacing all the 2.4 million additional discretionary meters *in the first year* not spread over three years as was done in calculating the average cost under the Legacy MSA. The counterfactual also included 660,000 non-discretionary replacements of meters less than 20 years old, that is one year's worth of non-discretionary replacements. In total, therefore, the exercise assessed the costs of making over 3 million replacements that is, more than three times the level of replacements allowed without charge under the glidepath.

(ii) National Grid's challenges to the age-related counterfactual

128. National Grid contended that the age-related counterfactual used in the Decision was invalid and showed nothing useful about the reasonableness of the early replacement charges in the Legacy MSA.

The parties would not have been able or willing to conclude such a contract in 2004

129. National Grid's first point was that the counterfactual was unrealistic because it would not have been feasible for the parties to enter into such a contract at the time the Legacy MSA was negotiated. The information about the age profile of the legacy meter stock that the Authority used to compare costs was produced, we were told, after a huge amount of internal work by National Grid involving drawing together and analysing many hundreds of difference data sets. At the time that the Legacy MSAs were negotiated there was a very large number of meters installed where the company had no reliable information about date of installation. National Grid also referred us to contemporaneous documents which make clear that neither National Grid nor British Gas thought it was either feasible or desirable to have an early replacement scheme which relied on the characteristics of specific meters. For various practical reasons, both parties preferred a scheme which involved a flat rate charge because this minimised transaction costs and maximised the flexibility that the gas suppliers had in deciding which of their portfolio of meters they replaced at any given time.

130. In our judgment this criticism is based on a misapprehension of the function of the counterfactual in the economic analysis required in a case such as this. The Authority does not have to establish that the parties would have preferred to enter into a contract along the lines posited in the age-related counterfactual. The age-related counterfactual is based on features of other contracts operating in the market, namely the CMO contracts and National Grid's N/R MSA. The question the Authority is asking is "what would have been the position if the parties had operated a system in relation to the legacy meters similar to the system that now operates in relation to new meters?". We regard that as a useful avenue of inquiry even if there would have been logistical or financial difficulties in setting up such a system. As Ms Carss-Frisk QC argued in her closing submissions, the Authority is not setting out to prove that the counterfactual is what would or should have happened or that it would have been preferred by the parties. It is simply asking what would be the result if they had.

No correlation between age and condition of the meter

131. National Grid's second attack on the age-related counterfactual was that it was based on an assumption that older meters are less valuable than new meters and that a lower PRC

should therefore be payable for the replacement of an old meter than for a new meter. National Grid submitted that this was not the case and that in fact the correlation between age and condition was very weak. On this point, Mr Mark Way gave evidence for National Grid. Mr Way is currently employed by National Grid Metering Limited as Asset and Planning Manager. He is responsible primarily for operational metering and asset management activities. His witness statement was not quite directed at the right point because he did not distinguish between meters which were the subject of a policy replacement requirement and those which were not. Since policy replacement meters are not part of the age-related PRC scheme under the counterfactual (because all policy meters can be replaced without incurring an early replacement charge) the relevant question was whether there was a correlation between the age and accuracy of a meter, leaving aside the policy meter population. But in his oral evidence Mr Way still did not agree that, leaving aside policy replacement meters, older meters are necessarily or even generally less valuable or more prone to failure than younger meters. National Grid also referred to the fact that since 1997, the industry regulator had refused to include a capital expenditure allowance in the price control based on National Grid replacing all 20 year old meters on the grounds that a policy of replacing meters just because they had crossed that age threshold would be incompatible with efficient capital expenditure in the interests of consumers.

132. We accept that there is no perfect correlation between the age of a meter and its accuracy. As with any mechanical item, whether it is a car, a washing machine or a gas meter, different models will have a reputation for being more or less reliable throughout their life. But that does not detract from the fact that, overall, older mechanical items are more prone to failure than new and therefore are regarded as less valuable. In his statement Mr Way included a graph showing the accuracy performance against installation date of the brand of meter which currently accounts for some 60 per cent of National Grid's domestic meter population. He said that this showed that the meters continue to perform well, with very few meters anywhere near the criteria for designating them for policy replacement over a 20 year life. But we accept the Authority's reading of this graph that it shows in fact that there is a correlation between age and reliability albeit that the graph does not demonstrate a linear relationship. The graph shows that if one looks at the line indicating reliability of meters installed between 1981 and 1985 and separately at the line relating to meters installed between

1996 and 2006, neither line shows reductions in reliability with age. However the older meters show lower reliability than the more recently installed meters. It may be that after ten years in service something happens to the meter which makes it less reliable. Or the post-1996 versions of this brand of meter may have incorporated some technical improvement which means that they will maintain that level of accuracy for the rest of their lives. For our purposes it does not matter – the graph shows that for the model of meter which makes up 60 per cent of National Grid’s stock there is a material difference in accuracy between the older and newer meters. No graph was produced by National Grid to show a different profile for any other brand of meter.

133. We also accept, as Mr Way stressed, that even in the later years, this brand of meter is still performing well within the accuracy tolerance designed to identify the policy meters. But that is not the point we are discussing here. We agree with the evidence of Professor Grout that the fact that an older meter is not so inaccurate as to merit designation by National Grid as a policy replacement, does not mean that from the gas supplier’s point of view the older, less accurate meter is just as good as a newer, more accurate meter. The question we are addressing here is, when a gas supplier is deciding which meters to replace out of the pool of meters which are not policy replacement meters, does it make sense to replace the oldest meters first? In our judgment on the evidence before us, the answer to that question is clearly “yes”.

134. In any event, we are not convinced that National Grid is right to say that there is an assumption underlying the age-related counterfactual that older meters are less accurate than newer. The counterfactual is based on the provisions of the CMO contracts and National Grid’s N/R MSA. Those contracts, for whatever reason, apply early replacement charges that decrease with the age of the meter. As we discuss below, it is legitimate for the Authority therefore to use an age-related counterfactual to assess the Legacy MSAs because that is how meter operators in a competitive scenario have chosen to structure their arrangements.

The counterfactual is not revenue or value neutral

135. National Grid’s third challenge to the usefulness of the age-related counterfactual was that it was neither revenue neutral nor benefit neutral, that is to say, although the counterfactual used the National Grid rental rates, it is not set up so that National Grid

receives the same money under the age-related counterfactual as it is guaranteed to receive under the Legacy MSAs. Further, the gas suppliers do not receive the same benefits under the age-related counterfactual as they do under the Legacy MSA. This arises, in part at least, because under the age-related counterfactual the gas supplier is allowed many more penalty-free replacements because of the age profile of the legacy meter stock and the number of policy meters which are replaced during those three years. National Grid calculated that under the age-related counterfactual devised by the Authority there were 1.18 million penalty-free replacements over the first three years whereas under the Legacy MSA there were only about 380,000 discretionary replacements (that is 980,000 glidepath allowance less 850,000 policy replacements per year in each of three years).

136. Although the Authority initially asserted in the Decision that the age-related counterfactual was revenue neutral, they acknowledged during the course of the hearing, that this was not so: the age-related counterfactual used in the Decision in fact generates a lower revenue for National Grid. National Grid argued that this lack of revenue neutrality fatally undermined the validity of the counterfactual. They argued that the results of the counterfactual are highly sensitive to the numbers that are included in the scenario. If the counterfactual is set up to give the gas supplier more free replacements and lower charges, then of course the end result will be that the counterfactual is cheaper for the gas supplier. They also argued that the lack of revenue neutrality undermines the purpose of the counterfactual which is to identify whether the *structure* of the Legacy MSA provisions was anti-competitive, not whether the amount of revenue earned by National Grid was reasonable. As National Grid submitted, the Authority had been prepared to assume that the level of the charges imposed in the Legacy MSA was not unduly onerous in the sense of being far greater than the actual customer-specific sunk costs. Given therefore that the abuse derived from the *structure* of the Legacy MSA provisions rather than from the *amount of revenue* they would generate, it is essential that the counterfactual also focus on the structure of the charges and not on their amount. National Grid argued that it is “a matter of basic scientific method” (Transcript, Day 9) to set up a ‘control’ which isolates the effect of the elements in the Legacy MSA to which objection is taken. National Grid put forward the evidence of a further expert witness, Mr David Matthew, who made a detailed critique of what Mr Keyworth had done. Mr Matthew devised an age-related

counterfactual which was revenue neutral. This showed, he argued, that gas suppliers would be no worse off under that counterfactual than they were under the Legacy MSA.

137. In our judgment this criticism of the age-related counterfactual and Mr Matthew's evidence is misguided. There would be much force in National Grid's argument if the Authority had simply picked the various inputs in the counterfactual at random. If it had simply used lower PRCs or higher numbers of free replacements in an arbitrary manner, the fact that they resulted in lower overall costs would not have told us anything useful. But the point about the counterfactual was, as Mr Keyworth repeatedly stressed, that it was "rooted in market reality" (Transcript, Day 9). The length of the contract (20 years), the provisions about free replacements and the level of the age-related PRCs were not simply chosen at random by the Authority. Mr Keyworth acknowledged that the metering business involves customer specific sunk costs and that this may provide a justification for the use of early replacement charging arrangements. In an important paragraph in his statement he says this:

"The Decision... takes account of the fact that commitments to future rental payments (and associated provisions for early replacement charges) are a feature that is observed in other contracts in the relevant market (specifically the CMO contracts and the N/R MSA). These contracts were examined in order to identify the specific means by which – through rental payment commitments and associated early replacement charging provisions – these contracts sought to address the fact that meter provision gives rise to customer specific sunk costs. The age-related counterfactual in the Decision was defined **so as to include early replacement charging provisions that were in a form that these contracts indicated to be sufficient to address this fact** (with both the CMOs and [National Grid] having undertaken replacement activity on the basis of early replacement charging provisions that are similar in form to those examined in the age-related counterfactual)." (paragraph 79, emphasis added).

138. The counterfactual is therefore looking at what bargains have in fact been struck in the sector of the market where meter operators are subject to competitive pressures. Those meter operators are incurring the same *kinds* of customer specific sunk costs as National Grid has incurred, albeit not necessarily the same *level* of costs. It is relevant to ask to what extent those meter operators have been able in their negotiations with British Gas to protect their revenue streams from the risk of early meter replacement. To put it another way, it is relevant to look at what kinds of arrangements other meter operators regard as giving them adequate revenue assurance such that they are prepared to conclude contracts, enter the market and carry out meter replacement on the basis of those arrangements. Having identified those terms, the counterfactual then assesses

what would have happened if those kinds of provisions had been applied to the legacy meter stock – would gas suppliers have been better off? That is a perfectly valid question to ask and constructing the counterfactual as Mr Keyworth has done is a good way to find out the answer to that question. It does not matter whether the age-related counterfactual is value or revenue neutral. What matters is that it is based on the contractual terms under which competing CMOs have been prepared to enter the market. If the counterfactual shows that gas suppliers *would* be better off under the counterfactual than they are under the Legacy MSA, that points to a conclusion that the Legacy MSAs go further than they should or need to go in order to protect National Grid’s revenue in a competitive market.

139. We agree with Mr Keyworth that it would only be necessary to ensure that the age-related counterfactual was revenue neutral compared with the Legacy MSA if the Authority accepted that National Grid was *entitled* to receive from the gas suppliers the level of revenue that is generated for it by the Legacy MSAs (that is some part of the RAV). The Authority is very far from accepting that and they are clearly right to reject any such suggestion. National Grid argues that because the Authority (a) accepts that payment completion arrangements are a legitimate way in which a meter operator can recoup its sunk costs and (b) assumes that the level of the PRCs is not unduly onerous (in the sense of being far greater than actual customer-specific sunk costs), that means that the Authority must be attacking only the structure of the Legacy MSA charges and not their amount. National Grid moves from this assumption to an assertion that the counterfactual must be revenue neutral in order to be valuable. We disagree with that line of argument. Even though the Authority has not treated this as an excessive pricing case, it is still entitled to find that the level and structure of the early replacement charges in the Legacy MSA create a disproportionate disincentive for gas suppliers to move their business to new entrants. The Authority was therefore entitled to find (see paragraph [87] above) that the charges provide a level of protection for the dominant firm which is far greater than the new entrants were able to achieve in their negotiations with the same customer.
140. As a further point National Grid argued that in basing the age-related counterfactual on the CMOs’ contracts the Authority has “cherry picked” those elements in the contracts which favour its case. Mr Matthew, on behalf of National Grid, illustrated how

sensitive the outcome of the counterfactual is to a change in the input parameters. He calculated what would be the cost of the replacement programme posited in the Decision if the age-related counterfactual had been based on 25 years and found that the average costs of the 50 per cent accelerated replacement programme would rise (on his calculations) from less than £18 to around £40 to £53. Since many meters last well in excess of 20 years there is, National Grid argues, no reason why the parties could not have used a notional life for meters in the contract of greater than 20 years.

141. Again, we agree with the Authority that although there may be “no reason” why the 20 year cut off is used, the important fact for our purposes is that 20 years *is* the cut off used in the CMO and National Grid’s N/R MSA agreements. As Mr Keyworth put it, 20 years was a clearly understood benchmark as being sufficient protection to underpin new investment by the market entrants. National Grid pointed to the UMS contract which provides, in certain circumstances, for a 25 year rather than a 20 year scale of PRCs for DCMs. But that applies only in very limited circumstances, [...] [C]. This does not, in our judgment, detract from the fact that the industry “standard” outside the Legacy MSA is to treat DCMs as likely to be in place for 20 years.

142. National Grid complained that the counterfactual also ignores the fact that the CMOs have a five year exclusivity period at the start of their contracts and (though there was some dispute about this) that after that exclusivity has expired, British Gas can only replace the CMOs’ meters in limited circumstances. But we consider that the Authority was right to conclude that it would not make sense to replicate all the terms of the CMOs’ contracts into the counterfactual. Those contracts are entered into by firms which are not only non-dominant but also new entrants into the market. As Mr Keyworth pointed out, at least one of the contracts – the UMS contract – does allow replacement in the secondary period by another party of any of the CMO’s installed meters and in all three of the contracts, the PRC payable where the meter *can* be taken out in that period is clearly based on an age-related structure. We do not agree with National Grid that there was unfair “cherry picking” of those aspects of the CMOs’ contracts which served the Authority’s purpose in devising the counterfactual.

143. We therefore reject National Grid’s criticisms of the age-related counterfactual. In our judgment this was a useful exercise properly carried out by the Authority. It supports

the Authority's conclusions that an age-related approach would have provided CMOs with significantly greater opportunities to engage in meter replacement programmes, whilst gas suppliers would face early replacement charges that would be substantially lower than those likely to be payable under the Legacy MSAs. This in turn supports the Authority's conclusion that the Legacy MSAs went too far in protecting National Grid's revenue stream and were therefore not justified.

144. As to the complaint that the age-related counterfactual is not "value neutral", National Grid focused on the fact that under the CMO contracts, gas suppliers had to pay a transaction charge for CREs whereas the glidepath allowance under the Legacy MSA was designed to be high enough to allow all expected CREs to be undertaken without incurring early replacement charges. This point was, however, dealt with in paragraphs 4.94 and 4.95 of the Decision. The Authority calculates the amount that gas suppliers would have to pay CMOs for CREs over the first 3 years of the contract as £13.4 million for DCMs and sets out the way it has arrived at these figures in Annex 5. The Authority concluded that this did not affect the use of the age-related counterfactual because it was likely that the imposition of this transaction cost would be offset by a reduction in the overall rentals. They noted that there was evidence that this had in fact happened in the negotiations between CML and British Gas. We agree with the Authority's submissions on this issue.

(iii) The no-PRC counterfactual

145. The Authority also relied in the alternative on a counterfactual which included no PRCs but simply assumed either that National Grid maintained the P&M terms with higher rentals and no early replacement charges or that it had sought to retain customers by simply competing on price without any early replacement charges. The Authority argued that this counterfactual had been prefigured in the Decision and was a proper response to National Grid's assertion that gas suppliers were at all times free to decline to enter into the Legacy MSA and remain on the P&M terms instead. Since the Tribunal has rejected National Grid's criticisms of the calculation of the cost of exceeding the glidepath and of the age-related counterfactual, it is not necessary for us to resolve the issues surrounding the no-PRC counterfactual.

(iv) National Grid’s counterfactual – the same incentives as a sale

146. National Grid argued that the correct counterfactual was the sale of the meter by the meter operator to the gas supplier. A sale arrangement was quite clearly not foreclosing and hence not abusive. A sale sets up economically efficient incentives for gas suppliers to decide what meter replacement programme to undertake. The Legacy MSA, National Grid argued, replicated these incentives. Hence it could not be regarded as anti-competitively foreclosing.
147. To make the point that the Legacy MSA contract reproduced the replacement incentives of ownership it was assumed that a meter has a physical life of 20 years whether owned or rented. The discount rate was assumed to be zero. Whoever owns the meter has incurred costs in buying and installing the meter at time zero and those costs are sunk and not recoverable.
148. In a scenario where meters are sold rather than rented the position is as follows. In year τ the owner of a meter may consider replacing the existing meter with a new model which he considers offers a better service. The annual value of that improvement can be expressed as D . The new meter is assumed, in National Grid’s example, to have a life of $(20 - \tau)$ years. This means that installing the new meter brings a net present value of benefits to the gas supplier who is buying the meter equal to $D(20 - \tau)$. To install the new meter will cost the gas supplier $P(\tau)$ and thus the incentive for a gas supplier to replace the meter in year τ can be expressed as $D(20 - \tau) - P(\tau)$.
149. In a scenario where the meters are rented, the rental contract hypothesised by National Grid provides for an annual rental (“ r ”) per year for 20 years starting from time zero. If the contract is terminated before the end of year 20 a penalty equal to the remaining rental must be paid. Thus if the contract is terminated in year τ a penalty of $r(20 - \tau)$ is due. Under the hypothesised rental contract, in year τ the gas supplier would upon replacement also benefit to the extent of $D(20 - \tau)$ at an acquisition cost (in rentals or one off cost) of $P(\tau)$. But he would also pay a penalty of $r(20 - \tau)$. However, future rentals on the old meter, also equal to $r(20 - \tau)$, are saved and the penalty and saved rentals thus cancel out. The implication is that in net terms renters and owners have the same incentives to update the meter stock at any time τ that is $D(20 - \tau) - P(\tau)$.

150. This result requires however that the rental contract terminates at the date that the meter becomes physically obsolescent. If that is not so then the net benefit to replacement under ownership differs from the incentive under the rental agreement. For example, the commitment to pay an early replacement charge under the contract may terminate (as with the Legacy MSA) after 18 years rather than 20 but if the meter continues to be rented then rental is still due for the last two years. The renter may avoid these later rental charges by replacing the meter without penalty. However, the gas supplier who owns its meters has sunk all the cost of purchasing the meter (at a price presumably based on its expected physical life) and thus does not have such savings to make. Quite correctly, therefore, National Grid made the point that if the commitment to pay an early replacement charge under the contract terminates *prior* to the physical obsolescence of the meter then the net gain from replacement at any time for a gas supplier who owns the meter is *less* than under the rental agreement. However, this particular result is only partial for it does not take into account what is known as the intertemporal arbitrage condition. This refers to the fact that although it may be profitable for the gas supplier to replace the meter at a point in time it might be even more profitable to wait before replacement. With this condition in place the ranking of incentives to owners and renters may be different from those suggested by National Grid in a scenario where the penalty period ends prior to the end of the physical life of the meter.

151. But more to the point is the fact that the hypothesised rental contract does not reproduce the character or terms of the Legacy MSA contract. Under that contract one of three penalties is payable if a meter is removed; zero if the number of meters rented remains above the number set by the glidepath, the BLR if in the Take or Pay zone, and the unrecovered future rentals represented by the PRC for replacements which take the number of meters rented below the Take or Pay zone. It is true that the *amount* of the PRC the gas supplier pays *if* he pays a PRC declines over the years of the Legacy MSA contract. But the question *whether* the gas supplier has to pay a PRC is not related to the age of the meter or how many years of rental are outstanding on that meter. Rather, the PRC depends entirely upon the number of meters already removed from the stock in that year or in previous years. Further, *whether* penalties are incurred under the Legacy MSA is dependent not just on how many meters the gas supplier decides to replace but on how many meters National Grid determines it should replace in the form of the

policy requirement. In the hypothesised rental agreement the early replacement penalty is equal to future rental payments yet to be paid dependent upon the number of years the meter has been installed and is unrelated to the number of other meters removed. In that sense, it is an age-related scheme because whenever the customer decides to remove it, the amount of the PRC payable (including whether it is zero or not) depends on how long the meter has already been in place and hence for how many years rental has already been paid.

152. National Grid may therefore have succeeded in showing that an age-related early replacement scheme provides the same incentives for replacement as the sale of the meter (putting on one side the differences that exist between what the buyer acquires when he rents rather than buys a product). But the Legacy MSA cannot be described as an age-related scheme just because the PRC declines over the years. The amount of PRC payable, including whether it is zero or not, is not dependent on how many years that meter has been in place or how much rental has been paid in respect of that meter. Looking at the operation of the Take or Pay zone, the number of years' rental (BLRs) that the customer pays when he removes a particular gas meter does not depend at all on how many years he has already paid rent on that meter. It is determined purely by the number of meters removed over past years and how many meters the customer removes in later years.
153. In comparing the incentives for replacement operating on a gas supplier under two different kinds of arrangements, one cannot leave out of account the provisions which determine whether a penalty is paid and focus instead on the amount of the penalty paid. The contractual conditions which determine *whether* a penalty is payable do not simply influence *which* meters the renter will choose to replace but *when* they will be replaced and *how many* will be replaced. It is not right therefore to see the Legacy MSA as some form of scaled up or aggregated version of an individual meter, age-related scheme.
154. We do not find, therefore, that the comparison carried out by National Grid is useful. It focuses entirely on the fact that the PRCs are calculated using the net present value of future rentals. It ignores the elements of the contract that would, in practice, influence the decisions of the gas suppliers as to the number of meters to replace, namely the

provisions which determine when early replacement charges (whether BLRs or PRCs) actually become payable.

155. A more useful analysis of the incentives likely to influence the decisions of the gas suppliers as to the rate at which to remove meters under the Legacy MSAs was provided, at the Tribunal's request, during the course of the hearing. Instead of spreading the amount of the early replacement charges over the population of meters *removed* (as Mr Keyworth did in calculating the average costs of replacement) this exercise spread that amount over the population of meters *remaining*. In other words the cost of removing a given number of meters was expressed as an additional rental due on the remaining meters. The resulting table (attached to this judgment as Annex 2) shows how much higher the rental per meter would be if, instead of pursuing an 18 year replacement strategy for DCMs as envisaged by the glidepath, the gas supplier implemented a programme of replacing all its meters over 17 years, or over 16 years and so on. The table shows that the rental per meter rises fairly rapidly as the supplier removes meters faster than allowed under the glidepath such that if he decides to remove all his National Grid legacy meters over 14 rather than 18 years, his rental rate is the same as the rental he would have been paying if he stayed on the P&M terms – a level of rental which was at the time of the conclusion of the Legacy MSAs above the rental on offer from the CMOs.

156. In conclusion, we reject National Grid's criticisms of the counterfactual used in the Decision and we also find that the effect of the Legacy MSA early replacement charges does not generate the same replacement incentives as the sale of meters would generate. The counterfactual exercise used in the Decision was properly carried out by the Authority and fully supports the conclusions drawn from it.

(f) Maintenance bundling

157. Another aspect of the Legacy MSAs that the Authority criticised was the effect that maintenance bundling had on the amount of replacement activity that the gas supplier could make available to a CMO. The Authority did not find that maintenance bundling was itself an abuse. But meters are sometimes replaced by National Grid on a maintenance visit. This affects the CMOs' business in two ways. First, it means that the new meter will not be a legacy meter which the gas supplier is likely to want the

CMO to replace (see Decision paragraph 4.82). In addition because a replacement carried out on a maintenance visit counts against the free allowance under the glidepath, the effect was to reduce the number of discretionary replacements that a CMO could expect to be asked to replace without the gas supplier incurring an early replacement charge: see paragraph 2.96 of the Decision.

158. So far as DCMs are concerned, the evidence before us indicates that there is really no maintenance service required for these meters, even though an element supposedly covering the cost of maintenance is included in the National Grid rental price. According to Mr Avery, British Gas decided that it would operate a “first visit fit” principle whereby any opportunity for a CMO to gain access to a domestic premises was regarded as an opportunity to replace the meter, whether it was capable of being repaired or not. Even with the maintenance bundling obligation in place, British Gas regarded itself as entitled to direct what started out as a maintenance call to a CMO so that the CMO could replace the meter, rather than call National Grid to repair or replace it. It is true that this meter then counts against the glidepath just as it would if National Grid had replaced it. But for DCMs it appears that the bundling of maintenance had no foreclosing effect additional to that of the operation of the Legacy MSA glidepath.
159. The position regarding PPMs is different. CML and Siemens in particular stressed in their submissions that real maintenance work is carried out on these meters because they are much more expensive to replace. The meters have batteries that need to be replaced periodically and they are more technically complicated than DCMs. The gas supplier is therefore likely, given that maintenance is bundled, to ask National Grid to attend on a maintenance call out to a PPM meter rather than direct the CMO to replace it with a new PPM.
160. Mr David James and Mr Avery for National Grid made the point that National Grid’s PPM charges are lower than the PPM charges set by the CMOs so that, if the meter does need to be replaced, gas suppliers are likely anyway to want National Grid to replace their PPM meters rather than a CMO. As Mr Avery put it (paragraph 105 of his witness statement) “due to the cross subsidy a National Grid PPM is always cheaper than a CMO PPM and it makes no economic sense to switch out a National Grid PPM unnecessarily, except to meet the volume commitments under the CMO contracts”.

However, Mr Avery's evidence (and that of Mr Duncan Southgate on behalf of Siemens) was that at the time of the ITT, British Gas had intended to negotiate an unbundling of maintenance with National Grid and use the CMOs for PPM maintenance work, even though if the meter had been replaced rather than repaired, they would have, as Mr Avery put it, "to take that hit of prepayment meters being slightly more expensive through CMOs than they were through National Grid" (Transcript, Day 4, p.33). This accorded with Mr James' evidence in cross examination when he confirmed that at the time of the ITT, British Gas intended that the "first visit fit" principle would apply to both PPMs and DCMs.

161. We were told that in 2005 around 600,000 unplanned maintenance visits to PPMs were undertaken by National Grid. When it is called out to repair a PPM meter, National Grid may indeed simply repair it. In such a case the visit has no effect on the Legacy MSA. But if the meter is replaced on that maintenance visit then the new PPM will go onto the N/R MSA. This has the double effect found by the Authority, namely that the CMO does not have an opportunity to replace that meter with its own meter and there is one less penalty-free meter available under the glidepath. Of the 600,000 visits undertaken in 2005, about 15 per cent resulted in meter replacement (about 85,000). This represents about 5 per cent of National Grid's total number of PPMs. Although these numbers are small in terms of volume, they have a value out of proportion to their number. Siemens and CML showed us that in their initial bid against the British Gas ITT, although the proposed number of PPMs was less than a third of the number of DCMs, the expected annual revenue was substantially more for PPMs than for DCMs. Mr David Lee's evidence on behalf of Siemens was that in Area 5 which was allocated to CML, the number of PPMs replaced by National Grid on maintenance visits would have translated into approximately 8,000 PPM replacements in the first year of the MSA contracts - a significant proportion of their total contracted gas meter installation volumes.

162. Further, it is difficult for a gas supplier to ensure that only those PPMs which really need to be replaced are replaced by National Grid when it makes a maintenance visit. Mr Avery confirmed that British Gas's preferred outcome would be that National Grid actually repaired the meter rather than replacing it if possible. There was some suggestion in the papers before us that British Gas suspected that National Grid was

replacing PPMs on maintenance visits rather than carrying out routine maintenance. Certainly, the way the Legacy MSA works gives National Grid an incentive to replace meters rather than repair them because it reduces the number of free discretionary replacements available to the gas operator (which could be used to install a CMO meter).

163. We therefore conclude that even though maintenance bundling has not been found to be abusive, it does aggravate the effect of the Legacy MSAs in the two ways that the Authority found.

(g) The effects of the Legacy MSAs

(i) Did the Legacy MSAs result in British Gas reducing the level of replacement undertaken by the CMOs?

164. The Authority found that the Legacy MSAs had had an actual foreclosure effect on the relevant market. In relation to each of the CMOs, the Authority found that once the Legacy MSA terms had been concluded, they resulted in British Gas tightening the terms of its contracts with the CMOs in order to minimise its exposure to the early replacement charges. The Tribunal was provided with a great deal of evidence from National Grid and the Interveners on this issue, seeking to explain what had happened in the negotiations between British Gas and the CMOs and what had been British Gas's motivation. Although British Gas did not intervene in these appeals, we had not only the evidence of the witnesses who had been employed by British Gas at the relevant time but also large numbers of internal British Gas documents which formed part of the Authority's case file. We consider each of the CMOs in turn to consider whether the findings made by the Authority are supported by that evidence.

Meter Fit

165. Meter Fit was the first CMO to enter into a contract with British Gas in 2002. Its first installation was in November 2002. The findings in the Decision regarding the effect of the Legacy MSA on Meter Fit's business were limited. Ms Carss-Frisk for the Authority confirmed that there was no finding in the Decision that there had been a reduction in Meter Fit's volumes of meter replacement and the Authority was not asserting that there had been such a reduction as part of its case in this appeal. The

Authority focused instead on the renegotiation of the contract which began at the end of 2003 and was concluded in June 2004. As a result of that renegotiation, the fixed volume caps which prevented Meter Fit from replacing more than a certain percentage above contract volumes were “tightened”. This means that if the volume of meters in one year is in excess of a low percentage above the cap, that is treated in the renegotiated contract as a material breach. The Authority appears to have accepted Meter Fit’s view that the introduction of this cap was a result of British Gas becoming nervous about the replacement volumes in the Meter Fit contract.

166. Before the Tribunal, Meter Fit put the case on actual foreclosure rather differently from the stance taken by the Authority. Evidence about the renegotiation was given in the witness statement of Mr King. It was accepted on all sides that there had been substantial “teething problems” when Meter Fit’s contract with British Gas first came into operation in early 2003. It was also common ground that these problems were caused by fault on both sides. Mr King attributes the problems to IT systems issues at both the British Gas and Meter Fit ends. The data problems on British Gas’s part created difficulties for Meter Fit’s subcontractors. The renegotiation of the contract started in Autumn 2003 and was concluded in June 2004, setting new contract volumes and extending the initial period of exclusivity in the contract for a further year. There was also an upward revision of the meter rentals.

167. Meter Fit sought to show that the volumes of meters that British Gas contracted for in this renegotiation were lower overall than the original volumes and that this reduction in business was the result of the conclusion of the Legacy MSAs in May 2004. They produced a table showing the original contract volumes as compared with the renegotiated contract volumes, Year 1 being November 2002 – November 2003:

Volumes under Meter Fit / British Gas Contract

	Year 1	Year 2	Year 3	Year 4	Year 5	Total years	Average Years
Original	[...][C]	[...][C]	[...][C]	[..][C]	[..][C]	[...][C]	[...][C]
Renegotiated	[...][C]	[...][C]	[...][C]	[..][C]	[..][C]	[...][C]	[...][C]

168. Meter Fit argued from this table that the renegotiation resulted in an overall reduction in volume ([...][C]) of about 7 per cent. We do not agree that that is a sensible reading of the table. The total volumes over all the years (and hence the average annual volume) are lower than was contracted for because of the substantial underperformance in the first year of the contract – some [...][C] meters fewer than originally contracted for. Mr King says that “at no point during the negotiations did [British Gas] raise the issue of reducing volumes due to non-performance”. But this can only have been because it was obvious to both sides without British Gas raising it that, since Meter Fit only managed to replace about half of the first year’s commitment, this was what was prompting the renegotiation. This underperformance had nothing to do with the introduction of the Legacy MSA. Mr Avery’s evidence was that the original contract did not allow Meter Fit to carry forward volumes that it had not replaced in one year to the next year. The effect of the renegotiation was in fact to allow Meter Fit to make up for its underperformance in the first year by making slightly more replacements in subsequent years.

169. Mr King was not called for cross-examination by National Grid. We have read his written statement carefully and conclude as follows. Although Mr King says (in paragraph 18(e) of his witness statement) that “it would appear” that the renegotiation was affected by the Legacy MSAs, he does not say what happened at the time of the renegotiation which made that apparent. Meter Fit has not shown that the overall reduction in replacement volumes averaged over the life of the contract was the result

of the Legacy MSA. Further, we had the unchallenged evidence of Mr Lewis and Mr Neil Williams who were negotiating for British Gas with the CMOs that no overall reductions in the volume commitment were agreed with Meter Fit.

170. So far as the tightening of the maximum cap is concerned, Mr Avery explained that the cap was set because the contract moved from one where British Gas specified exactly which meters should be replaced (and could control the actual volumes replaced in that way) to one where they specified a pool of meters from which Meter Fit was free to choose the ones it would replace. The cap was included in the renegotiated contract so that British Gas could maintain its control over the total number of meters replaced by Meter Fit from that pool. This accords with the contemporaneous internal British Gas documents in particular an email from Mr Avery to a colleague in May 2004 in which he describes the reasons for the renegotiation with Meter Fit and the resulting agreement. There is also an internal British Gas paper dated May 2004 which explains:

“**Car Park Volumes** – Under the Agreements as originally conceived British Gas had near total control over the volume of work passed to [Meter Fit]. Under the Amendment Agreement British Gas will maintain a “car park” of available gas meter work from which [Meter Fit] can draw work. ... Control over a significant portion of volumes is thereby passed to [Meter Fit].”

Neither the email nor the paper mentions the Legacy MSAs as a reason for amending volumes in the Meter Fit contract.

171. It is not right therefore to say, as Mr King does, that this was introducing a restriction that did not exist in the earlier contract. It is also not right to assume that the maximum cap operated to reduce the number of meters in fact replaced by Meter Fit. It could be regarded as simply re-establishing a mechanism for maintaining a degree of control over the volumes replaced. We do not accept therefore that the Authority was justified in drawing any conclusion from the renegotiation of the maximum cap.

172. Mr Avery was very clear why it mattered to British Gas that Meter Fit should not be able to replace all the meters in the pool in one year – this was in order not to go into the early replacement charges. It may be that British Gas would have asked Meter Fit to replace more meters over the life of the contract in the absence of the Legacy MSA rather than sticking to the contract minima. But the Decision made no such finding and the Authority did not make any such assertion at the hearing. Mr Avery in fact denied

that this had occurred. His evidence was supported to some extent by the July 2004 email which we discuss further below which says as regards Meter Fit that given their commercial difficulties, “a commitment to allow them to operate at 100% volume was given during the recent contract renegotiations”.

173. In so far as the Authority relied on the changes in the contractual terms when the Meter Fit contract was renegotiated to establish an actual foreclosure effect from the Legacy MSA, we find that such a conclusion is not adequately supported by the evidence before us.

CML

174. The position of CML was different from Meter Fit in that CML and British Gas were still negotiating the terms of their contract at the point when the Letter of Intent concerning legacy meters between National Grid and British Gas was signed in late 2002. The Decision found that there were two aspects of British Gas’s relationship with CML which pointed to an actual foreclosure effect. First, in the pre-contract negotiations in March 2003, British Gas informed CML that it wanted to rent around 15 per cent fewer DCMs from CML than it had previously expected to rent. Thus, the Authority found, the volumes included in the contract were lowered in order to reduce British Gas’s exposure under the Legacy MSAs. Subsequently in May 2006, after the contract had been concluded and gone live, British Gas informed CML that it was reducing the volumes that it would ask CML to replace so that British Gas kept to the minimum number that it was obliged to ask CML to replace. The Authority found that although British Gas was entitled under the contract to reduce the volume by this amount, CML had expected to supply 100 per cent of the contractual volumes.
175. We had a number of witness statements about these negotiations. Four of them came from people who had been involved in the negotiations on the British Gas side. The two more senior British Gas people, Mr James and Mr Avery, gave evidence on behalf of National Grid. The two more junior members of the British Gas National Metering Team, Mr Lewis and Mr Williams, gave evidence on behalf of CML. There was also evidence from Mr Duncan Southgate on behalf of Siemens and from Mr Timothy Hoskin on behalf of CML about those companies’ negotiations with British Gas at the

relevant time. Further details about these witnesses are set out in Annex 1 to this judgment.

176. It was accepted on all sides that there had been a reduction in volumes of DCM replacements negotiated in March 2003: the chronology agreed between National Grid and the Authority put this at 20 per cent. This accords with the evidence about these negotiations given by Mr Southgate on behalf of Siemens. But there was a dispute as to *why* this had happened. In his first witness statement, Mr James' evidence was that by the time CML came into the picture in late 2003, the British Gas negotiating team understood the Legacy MSA constraints well and these, along with other considerations, "were factored into the CML contracts". This accords with the evidence of Mr Avery to the effect that "the opportunity was taken" during the renegotiation to reduce the CML volumes to minimise the likely exposure to penalties on early replacement of National Grid meters. In his third witness statement Mr James, while not going back on his earlier statement, suggests that the Legacy MSAs were only one of a number of factors – he describes six others – which were at least as important in arriving at the lower CML contract volumes.
177. His evidence is contradicted by that of Mr Lewis and Mr Williams. Mr Lewis says that at some point in early 2003, he and his colleagues became aware that a deal was being negotiated with National Grid that would restrict the number of National Grid meters that could be exchanged in any year. As a result, British Gas wanted to identify the extent to which the CMO volumes were likely to result in British Gas exceeding the level of replacement allowed. Mr Lewis and Mr Williams carried out various hypothetical modelling exercises and these made clear that the contract volumes agreed or proposed to be agreed with the CMOs were in excess of the glidepath allowance. They indicated that British Gas would be in the Take or Pay zone for a substantial period for both DCMs and PPMs. Mr Lewis then describes the internal British Gas discussions as to how to approach a reduction in the CML volumes, given that the CML contract had not yet been concluded. He states that he decided for purely commercial reasons not to disclose to CML that the reason for British Gas seeking to reduce volumes was the effect of the Legacy MSA. Such a reference could have been inflammatory and unhelpful. We accept that this explains why the correspondence between British Gas and Mr Southgate at Siemens does not blame the volume

reductions on the Legacy MSAs. Nevertheless, Mr Lewis says that there was no reason to change the CML volumes other than the impact of the Legacy MSA. His evidence was supported by a document from January 2003 that was included in a bundle introduced by National Grid during the course of the hearing. The document is headed “Meter Operator Contracts Volumes and Gas Legacy Impact Discussion Paper”. This sets out the conclusion that even if operating at the bottom of the volume bands in the CMO contracts, there are “significant problems” in the first two years in terms of replacement exceeding the glidepath. In other words even if British Gas restricted the CMOs to the minimum levels of replacement that were envisaged for them, the number of replacements would still exceed the glidepath allowance by a significant number of meters in the first two years. This could be dealt with, according to the Paper, by significantly reducing meter replacement after the expiry of the initial five year period (that is the period during which the CMOs have guaranteed volumes); renegotiating the volume bands with the CMOs; delaying the roll out of the CMO contracts or incurring the penalties under the CMO or Legacy MSA contracts.

178. Mr Lewis’ evidence is also supported by an email from 9 July 2004 from Mr Avery to his colleagues setting out a draft email to be sent to Mr Paul Bysouth, Mr Avery’s director at the time (“the July 2004 email”). In this email (which was in fact sent to Mr Bysouth on 22 July 2004) Mr Avery seeks approval to negotiate a revised deal with OnStream “to address the legacy volume mismatch issue”. Mr Avery explains by way of background that when the Legacy MSA Letter of Intent was signed with National Grid (in December 2002), British Gas was aware that there would be a mismatch between the numbers of DCM replacements under the Legacy MSA glidepath and the contractual commitments under the CMO contracts. Mr Avery sets out the “Actions Already Taken” to address the mismatch including reducing Siemens’ volumes to approximately 80 per cent of the tender numbers as well as operating the OnStream contract at 80 per cent of the contractual commitment.

179. We accept that there may have been a number of different reasons for the reduction in the CML volumes, but we prefer the evidence of Mr Lewis over that of Mr James’ third witness statement. Mr Lewis’ and Mr Williams’ description of the modelling carried out and the discussions within the British Gas National Metering Team establishes, in our judgment, that the Legacy MSAs were an important factor in British Gas’s decision

to reduce the contract volumes during the 2003 negotiations. Mr James' and Mr Avery's attempts in their evidence to downplay the significance of the Legacy MSAs are, in our judgment, unconvincing. We do not accept that the parallel, larger, reduction in electricity PPM volumes at about the same time casts doubt on the conclusions of the CML witnesses. Mr Avery accepted when cross examined by Mr Vajda QC that during 2003 and into 2004, British Gas realised that it was cheaper for them to cut the volumes available to the CMOs than to pay the BLRs even if the reduction in volumes meant that the CMO rentals had to rise. We find that in the 2004 renegotiations, British Gas was trying to optimise its metering costs by cutting the volumes contracted for with CML so as to reduce the costs of operating in the Take or Pay zone.

180. Turning to British Gas's proposal in May 2006 to reduce levels to the contractual minimum, we had evidence on this from Mr James on behalf of National Grid. For CML we had evidence from Mr Hoskin who has been General Manager of CML since April 2006 and whose evidence covered both his own experience and what he had been told when he joined CML by his predecessor in the post, Duncan Southgate.
181. We regard the correspondence in 2006 as very telling. When the contract was concluded in December 2003, British Gas supplied CML with a comfort letter to show to its bankers confirming that British Gas "will use all reasonable efforts to maintain the benchmark volumes at the 100% contracted level on an annual basis...". However, by 2006 the correspondence shows that British Gas was pressing to reduce the volumes to the minimum required under the contract, that is 85 per cent of the benchmark only. It is clear to us from this correspondence that the tenor of these discussions was to explore how British Gas could reduce the number of meters that CML was replacing without rendering the CML business unviable. It is also clear that the reason for British Gas's insistence that it must keep replacement volumes to an absolute minimum was because it wished to avoid penalty payments under the Legacy MSA. We have no doubt therefore that the effect of the Legacy MSAs was to push British Gas to a position where its primary concern was to limit CML's replacement volumes to the minimum commensurate with its contractual obligations and the continued viability of CML's business. This is not what one would expect to see, given the evidence that British Gas considered that CML's DCM rentals were materially cheaper than National Grid's.

182. There was some disagreement among the witnesses as to whether CML would have been able to undertake a higher volume of replacements than the minimum they were in fact asked to undertake. But we accept the evidence of Mr Lee that by mid 2005 Siemens was achieving the contracted rate of installation and could easily have accommodated significant additional volumes of work.
183. We therefore uphold the Authority's finding that the Legacy MSAs had an actual foreclosure effect on the amount of business that British Gas gave to CML.

UMS

184. In the Decision the Authority found that in 2004 British Gas also considered ways of renegotiating the UMS contract to reduce the volumes contained in the contract. Mr Lewis' evidence was that he had been involved in the negotiations with OnStream and their five year contract volumes were reduced by 40 per cent. As discussed above (paragraph [178] above), the July 2004 email sent by Mr Avery to Mr Bysouth recommended that negotiations were progressed with OnStream to reduce volumes to 60 per cent of the contracted volumes, provided that the increase in rental price was not greater than a certain amount. The Authority was therefore entitled to rely on a reduction in the volumes of replacements undertaken by OnStream as evidence of actual market foreclosure arising from the operation of the Legacy MSA provisions.

Conclusion on reduction in CMO replacement levels

185. We find therefore that the evidence as regards CML and UMS supports the Authority's findings that the Legacy MSAs have had an actual foreclosing effect on competing CMOs and that this is likely to make it more difficult for the CMOs to compete with National Grid for even the limited meter numbers that suppliers might want to replace using a CMO.
186. Overall we also note that despite British Gas's efforts to limit the number of replacements carried out by the CMOs, it has still been in the Take or Pay zone since February 2006 and was contemplating the possibility of incurring PRCs in the course of 2007. Whatever the reason why British Gas has replaced more meters than allowed by the glidepath, this indicates that the glidepath allowance was not, in fact, sufficient to

allow British Gas to make all the replacements it wanted without incurring charges. This is bound to affect the numbers of replacements it makes in subsequent years.

(ii) Did the Legacy MSAs deprive consumers of the benefits of competition?

187. In paragraphs 4.111 onwards of the Decision, the Authority found that by restricting the volume of meters that gas suppliers are likely to contract with CMOs, the Legacy MSAs harm customers because gas suppliers cannot pass on the lower costs of CMO DCMs as compared with National Grid DCMs. The Authority set out a graph which compared the Legacy MSA rental charges with a weighted average CMO charge over the period January 2004 to January 2007. This showed that there was an average annual saving of over £1.25 for switching out a legacy meter. The Authority pointed out that the price differential will increase over the duration of the Legacy MSA because the rental charge is indexed to inflation (assuming that inflation will in fact occur over the coming years). Further, the Authority says, even this comparison may underestimate the harm to customers because in a competitive market the CMO prices might be even lower.

188. National Grid submit that the “essential flaw” in the Authority’s comparison is that it overlooks the fact that the MSAs gave the gas suppliers instant and substantial savings in rentals across their entire meter portfolio “compared with the charges that would otherwise have been levied” (National Grid Supplemental Submissions, paragraph 5). The Tribunal does not accept that this point constitutes a flaw in the Authority’s reasoning. The extent to which National Grid responded to competitive pressure by reducing its Legacy MSA rental from the P&M rate was affected by its view of the likely speed at which meters could be replaced. It is this speed of replacement that the Legacy MSA early replacement provisions are intended to slow down. What the Authority is seeking to identify here is not the overall benefit to consumers of the introduction of competition into the market but the effect on consumers of the fact that fewer cheaper meters are being installed than would be installed absent the Legacy MSA glidepath. National Grid, as the dominant supplier, was able to negotiate the limitation on the numbers of replacements as a *quid pro quo* for the reduction in the annual rentals. But that does not reflect what would be likely to happen in a competitive market. It is not therefore right to regard the P&M charges as being “the charges that would otherwise have been levied” in the absence of the Legacy MSA

because in a competitive market where there were no barriers to entry, National Grid’s prices would have to fall to compete with the cheaper CMO product. As Siemens and CML put it in their closing submissions: “... the effect of the MSAs was to freeze prices for a controlled volume of meters at a level which quickly became anti-competitive”.

189. Detailed evidence comparing prices was submitted in the evidence of Mr Hoskin on behalf of CML. The Tribunal restricted the comparison made to the prices of DCMs since this was the scope of the comparison made in the Decision: see our ruling of 8 October 2008 ([2008] CAT 26). Mr Hoskin explained the data sources and methodologies underlying the price comparisons and set out the comparison on various bases. Basis 3 was the most relevant as it compared National Grid prices under the Legacy MSA against CML’s prices under the British Gas contract modelled so that they are on a like for like basis. [...] [C] CML also showed what the figures would be if an adjustment was made stripping out the element in National Grid’s DCM rental which represents the cross subsidy of PPM rentals. If that adjustment is made to remove the effect of the cross subsidy the difference in price is, of course, smaller: [...] [C] Mr Hoskin also set out in a table a comparison of CML’s service levels compared with National Grid’s. [...] [C]

190. National Grid criticised the price comparison set out in the Decision (which was based on a weighted average of CMO charges). Although National Grid did not cross examine Mr Hoskin, they also set out various criticisms of his calculations in their written Supplementary Submissions served in October 2008. CML countered those criticisms in its submissions served on 7 November 2008. In the Annex to its skeleton argument for the hearing, CML adjusted its model to take account of the points raised by National Grid to ascertain whether they would affect the contention that CML’s prices were cheaper than National Grid’s. The rental comparison, on Basis 3, was as follows:

With cross subsidy			Without cross subsidy		
National Grid Charge (£)	CML charge (£)	Difference (£)	National Grid Charge (£)	CML charge (£)	Difference (£)
[...][C]	[...][C]	[...][C]	[...][C]	[...][C]	[...][C]

191. We agree with CML that the correct comparison is the comparison of prices with, rather than without the cross subsidy. As Mr Rayment pointed out on behalf of CML, it would be unfair to compare DCM prices without the cross subsidy without also comparing PPM prices without the cross subsidy. National Grid succeeded at the earlier hearing in excluding evidence put forward by CML about PPM price comparisons so no such evidence about PPMs was before us at the hearing. We also note that the difference in prices may increase during the operation of the agreements because the rentals under the Legacy MSA are adjusted each year in line with inflation whereas the prices in the CMO contracts do not.

192. National Grid argued that the Authority should take into account the benefits to consumers arising from the Legacy MSAs, namely the minimisation of customer disruption. There is a disbenefit to domestic consumers if they have to stay at home to allow the CMO to change a meter where that meter is working perfectly well but the gas supplier has decided to replace it to benefit from lower CMO prices. In our judgment, this is not a point that is available to National Grid. It is for the gas suppliers competing with each other in the domestic gas supply market to weigh up the advantages for their customer of having the lower gas price resulting from a pass through of a lower meter rental against the disruption involved in having the meter replaced. It is not for National Grid to “protect” the gas suppliers’ customers from an accelerated replacement programme.

(iii) Did the Legacy MSAs hinder product innovation and risk impeding the roll out of smart meters?

193. In assessing the effect of the Legacy MSAs on product innovation one should not focus solely on the introduction of smart metering. Product innovation can occur by incremental steps improving “dumb” meters as well as by the big jump to smart meters. For example, we had evidence from Mr Hoskin for CML that one brand of meters which measures gas by ultrasonic means is more accurate than other meters which rely on a diaphragm and displacement measurement. The brand which uses ultrasonic means is also less likely to be affected by being tilted at an angle than the meter which uses a diaphragm method. He also referred to the fact that newer meters being installed have a modular design which allows them to be switched between DCM and PPM modes without needing to be replaced. Further, we were told by Mr Way on behalf of

National Grid that, as one would expect, when National Grid's on-going testing of meter accuracy identifies a defect in a particular model of meter, that information is fed back to the manufacturers so that the problem can be ironed out in future models. Those later models are therefore better than the legacy stock even though they are not "smart".

194. In so far as the structure of the Legacy MSAs slows down the replacement of the existing meters with new meters (including with new National Grid meters), it can be expected to discourage the installation of improved versions of meters. Thus the Legacy MSAs prevent the "creative destruction" that occurs where innovation renders earlier technology obsolete, to the disadvantage of the companies dependent on that earlier technology. We were referred by Ms Carss-Frisk to *Albion Water v Water Services Regulation Authority* [2006] CAT 23 where the Tribunal referred to competition as "taking the form of, and leading to, innovation in products and processes as part of the continual pursuit of customers' business" (paragraph [663]).
195. However, we do not find that the Legacy MSAs impede product innovation beyond that. It is unlikely that the Legacy MSAs have a material effect on the level or nature of research and development in meter improvement. This is an international market. We have not seen any evidence to suggest that access to the British market materially affects manufacturers' decisions about meter research and development.
196. So far as the proposed introduction of smart metering is concerned, the parties disagreed as to how likely it was that smart metering would be rolled out in the United Kingdom in the foreseeable future. The Decision referred to documents indicating that some of the gas suppliers (namely British Gas and EDF Energy) were concerned that the Legacy MSAs could stifle innovation, though National Grid put forward other documents suggesting that this was not an accurate assessment of those companies' views. The Authority accepted that these concerns were not universally felt – for example Scottish Power and Npower seem not to have been concerned. National Grid argued that by discouraging gas suppliers from replacing 'dumb' legacy meters with new 'dumb' CMO meters, the Legacy MSA is likely to increase the take up of smart meters because gas suppliers would be less likely to replace a brand new dumb CMO

meter with a smart meter and more likely to replace an old legacy meter with a smart meter.

197. The Authority submitted that the prospects for smart metering were much stronger at the time the Decision was adopted than they had been at the time the Legacy MSAs were concluded. In his witness statement, Mr Stephen Smith who is the Managing Director for Networks at the Authority, identified various factors which have made the business case for smart meters more compelling. The Authority pointed to the growing evidence of Government interest in rolling out smart metering. The Government document “Consultation on Policies Presented in the Energy White Paper” published in August 2007 sought views on whether the Government should introduce a programme to replace or upgrade all existing dumb meters with smart meters over a ten year period. Although the consultation document post dates the Decision, we consider that it casts light on what would have been the expectations of the market participants at the relevant time and the Authority accepted that it was legitimate for the Tribunal to take it into account.
198. National Grid countered with evidence that there were many other factors still impeding the large scale roll out of gas meters, relating to the basic economics of, and structural issues arising in, the competitive metering market. National Grid pointed to evidence from the gas suppliers that the benefits to them of rolling out smart meters are not sufficient to support a business case for them to undertake this. British Gas, we were told, responded to a Government consultation saying that costs would have to more than halve or the benefits would have to double before it would make sense for suppliers to deploy smart meters to all domestic and small business customers. British Gas had warned therefore that the Government cannot rely on suppliers taking the initiative to lead a roll out.
199. In our judgment, the decision whether to replace dumb meters with smart meters nationwide over a ten year period is a decision likely to be taken at Government level. We agree that, as National Grid put it, there is now a political appetite for mandating universal smart metering. That plan if it is indeed adopted will be based on macro-economic considerations as well as political and environmental criteria. It will inevitably involve the Government in detailed negotiations with the different

participants in the industry, not least as to who is going to pay for it. The gas suppliers' assertions that they cannot see the business case for undertaking this themselves must be seen in that context. If the Government decides to go ahead with the roll out, this will be a very substantial infrastructure project. One of many factors which will need to be dealt with will be the existence of early replacement charges imposed for the existing meter stock in both the Legacy MSAs and the CMOs' contracts. There were references in the Government consultation document to "additional stranding costs because of the terms of the Legacy contracts". But we are not convinced that this is referring specifically to the early replacement charges under the Legacy MSAs rather than referring more generally to the problem about what to do about the installed "dumb" meters if a ten year total replacement policy is indeed mandated. The contracts might make it more expensive for the Government to "buy out" the obligations. But we find that there is insufficient evidence to establish that the terms of the Legacy MSAs are likely currently to represent a primary constraint on the roll out of smart meters. The Authority's conclusion that the Legacy MSAs will have a material impact on the roll out of smart meters is not adequately supported by the material we have seen.

VII. CONCLUSION ON ABUSE

200. The Tribunal upholds the Authority's finding that the early replacement provisions of the Legacy MSAs constitute an abuse by National Grid of its dominant position. They clearly have a foreclosure effect in discouraging gas suppliers from moving more of their business to the CMOs and hence are likely to delay the reduction of National Grid's market share. The effect of the Legacy MSAs was demonstrated by British Gas's actions taken to reduce the volume of business it provided to some of the CMOs once the terms of the Legacy MSAs had crystallised. It is true that National Grid has incurred sunk costs in providing the installed meter to the gas supplier without an upfront charge. But this does not justify putting in place charges which may have the effect of maintaining volumes of replacement at little more than the level that applied when National Grid was a monopoly supplier. The disproportionate nature of the early replacement charges is, in our judgment, amply demonstrated by the comparison carried out with the terms in the CMO contracts and in National Grid's N/R MSA. There are some minor aspects of the Decision where we have found that the Authority

was not justified in coming to the conclusions it did. But the main finding of abuse set out in the Decision was, in our judgment, undoubtedly right.

VIII. PENALTY AND DIRECTIONS

201. Section 36(2) of the Competition Act 1998 confers on the Authority a power to impose a fine for conduct that infringes the Chapter II prohibition and Article 82 EC where the dominant company has acted intentionally or negligently. By the time of the hearing, there was no dispute that there was jurisdiction to impose a fine in the event that we upheld the finding of abuse. The Authority made clear in paragraph 6.56 of the Decision that, in setting the penalty, it had regard to OFT's *Guidance as to the appropriate amount of a penalty* (December 2004, OFT 423). The Tribunal has unlimited jurisdiction with regard to imposing, revoking or varying the amount of the penalty imposed by the Authority (see paragraph 3(2)(b) of Schedule 8 to the 1998 Act and *Napp Pharmaceutical Holdings Limited v Director General of Fair Trading* [2002] CAT 1 at paragraph [499]). The role of the OFT's Guidance on penalties in relation to the Tribunal's jurisdiction has been considered both by this Tribunal and by the Court of Appeal: see *Makers UK Limited v Office of Fair Trading* [2007] CAT 11 paragraphs [117] to [120] and the cases cited therein. Although that Guidance does not bind the Tribunal, we recognise that we should not disregard it and that the Authority, like the OFT, has a margin of appreciation as regards the level of fine it considers appropriate for a particular infringement.

202. In determining the level of the fine the Authority concluded that the infringement was serious, albeit not so serious as it had thought at an earlier stage of the investigation. The maximum starting point for the most serious anti-competitive conduct is 10 per cent of the undertaking's turnover in the relevant product market (see paragraph 2.8 of the OFT's Guidance). The Authority concluded that the appropriate starting point in this case was 4 per cent of that turnover. National Grid's turnover in the domestic-sized gas meter market is about £260 million per annum, 4 per cent of which is £10.4 million. National Grid complained that that the turnover figure used at this point in the calculation included the turnover for UMS whereas in other parts of the Decision, in particular in finding that there had been actual foreclosure, the Authority had treated UMS as a new entrant. We do not agree that there is an inconsistency here. It is clear

from the OFT's Guidance that, having regard to the evidence of Mr Shoesmith about the relationship between National Grid and UMS, the two entities should be treated as part of the same undertaking for this purpose. It is still legitimate to look at the reduction in UMS's contract volumes as evidence of the foreclosure effect of the Legacy MSAs (see paragraph [184], above) because those reductions would most likely have occurred regardless of whether UMS was a subsidiary of National Grid.

203. The Authority applied a multiplier of four to take account of the duration of the infringement between 1 January 2004 (the date on which the Legacy MSAs are, by their terms, deemed to apply) and the date of the Decision. This brought the fine up to £41.6 million. The Authority decided that there was no need to increase the fine in order to ensure it has an adequate deterrent effect.

204. The Authority then considered that there were "potential aggravating and potential mitigating factors" in the case but that on balance none of them was sufficiently serious to influence the penalty (paragraph 6.63 of the Decision). As a potential aggravating factor, the Authority identified that National Grid had not sought formal guidance from the Authority on the MSAs. In potential mitigation the Authority recognised that National Grid had taken positive steps to facilitate the introduction of competition in the domestic gas market. The fine ultimately imposed was therefore £41.6 million.

205. Before the Tribunal, National Grid's main argument in mitigation of the fine was that the Authority had been involved all along in the discussions about the development of the Legacy MSA and had not made clear to National Grid that it had serious concerns about the terms. This did not, National Grid conceded, create a fully-fledged, public law legitimate expectation on the part of National Grid that the Authority would not take action against the MSAs. But the fact that the Authority was monitoring and discussing the terms of the MSAs with the industry and was kept informed as the contracts evolved should mitigate the fine.

206. The Authority refutes this suggestion. Evidence about the discussions between National Grid and the Authority was given by Ms Maxine Frerk who is currently Director of Governance, Social and Consumer Affairs at the Authority. Ms Frerk was involved in discussions with National Grid about the issues arising from the opening up

of metering services to competition. In her evidence she drew a distinction between the stage in 2002 when National Grid was pushing the Authority for a regulatory solution to asset stranding and the later stage when National Grid had decided to deal with the issue by commercial negotiations with the gas suppliers. At the earlier stage the Authority, she said, would have been careful not to express either approval or disapproval of any proposal from National Grid because that would risk prejudging the outcome of the consultation procedure which would be needed before any such amendment to the regulatory framework could be adopted. The Authority relies on correspondence in October 2002 in which it made clear to National Grid that any proposals “must provide a clear net benefit to customers, and must not prevent the development of competition and customer benefits in the future”.

207. As regards the later stage, once it became clear towards the end of 2002 that National Grid was going to deal with the legacy meters issue by private contractual arrangements with the gas suppliers, Ms Frerk says that from her perspective “Ofgem’s interest in the proposed revised changes ceased”. In February 2003 when National Grid sought the view of the Authority as to the appropriate level of charges the Authority replied (letter of 18 February 2003):

“You specifically asked us for our view on the appropriate level of the domestic credit meter charge. Since this development is to be pursued by commercial negotiation Ofgem has no views on the appropriate level of the charge provided in setting its charges, terms and conditions [National Grid] is compliant with its obligations under licence and, more generally, competition and consumer law.”

In an internal paper prepared for the Authority’s Management Committee dated 5 February 2003, National Grid’s proposals for its contracts with gas suppliers were discussed. That paper recognised that the proposals reduce the incentive for suppliers to replace gas meters before the end of their useful lives but recommended that the Authority “take no action to support or oppose these developments” which National Grid was pursuing through contractual negotiations. The paper concluded that the Authority would continue to monitor the situation to ensure that the best interests of customers are served.

208. We have considered carefully the meeting notes and correspondence between National Grid and the Authority over the whole period. These must be seen in the context of the fact that the Authority was the architect and main driver of the process of opening up

metering services to competition. It had launched the consultation “Strategy for Metering – Report on Progress and Next Steps” in 2002 and was in frequent contact with all the industry players. It was pushing forward the plans for this major change in the structure of the industry as an important initiative. It must have been clear to the Authority that the terms of National Grid’s contracts dealing with the legacy meters were absolutely key to the success or failure of the RGMA project. Given the importance that the Authority has attached to the success of the RGMA project, we are surprised that the Authority did not consider that it was part of its role either as an industry regulator or as a competition law enforcement agency to steer the industry participants away from making private arrangements which risked jeopardising the competitive process to a serious degree. The Authority appeared content for National Grid to enter into contracts with the gas suppliers which it now considers, according to the Decision, have had a significant actual anti-competitive foreclosure effect and hindered the development of the business of the CMOs.

209. Both National Grid and British Gas are undertakings with long experience of working under regulation and are used to conducting their business under the scrutiny of the regulator and indeed of having major aspects of their business decided or at least influenced by the regulator. Ms Frerk records in an email in August 2002 that at a meeting at the end of June 2002 the Authority had invited National Grid: “to come up with a creative solution to the problem of premature replacement of meters” which did not involve a re-opening of the price control and which offered benefits to customers. In response to that invitation, National Grid wrote to the Authority in August 2002 proposing the introduction of premature replacement charges linked to a reduction in annual rentals as “the most transparent and most effective” way to reduce the current incentive for premature replacement. The letter closed with the National Grid Head of Regulation saying that he would welcome the Authority’s views on their proposals. The paper attached to that letter sets out the proposal in more detail and again invites the Authority’s views on the approach. There followed meetings between National Grid and the Authority in August and September 2002 and further correspondence where the Authority outlined several detailed concerns about the proposals and National Grid responded to those concerns by changing the proposals. Overall, we can well understand National Grid’s surprise and dismay when the Authority opened its

investigation into these agreements under the 1998 Act and imposed such a substantial fine.

210. There were two particular points which the Authority put forward to show that they had not given any comfort to National Grid in the course of the discussions. The first was that, so far as the Authority was concerned, the issue about the stranding of National Grid's assets had been dealt with in the earlier decisions which set the 2002 price control. According to Ms Frerk, this was the view of the Ofgem Management Committee with whom she met in October 2002. Callum McCarthy (Ofgem's Chairman and Chief Executive) and Eileen Marshall (the Authority's Managing Director of Competition and Trading Arrangements) were "very unsympathetic" to National Grid's concerns because National Grid had done well out of the overall deal struck at the time of the price control and should not be allowed now to unpick the less favourable parts of that deal. Mr McCarthy, we were told, expressed this view to Sir John Parker (Chairman of National Grid) when they met for lunch on 15 October 2002. We also had the evidence of Mr Stephen Smith who was Director of Trading Arrangements at the Authority during the 2002 price control review. He explained how National Grid had benefited from the adoption of an "unfocused" approach to the valuation of the transportation and metering assets. In the Decision (paragraphs 2.56 to 2.60) the Authority described this choice between the focused and unfocused approach to asset valuation and referred to National Grid's valuation of the benefit to it of the "unfocused" approach ultimately adopted as being "up to £2 billion". The Decision states that when National Grid tried to reopen the issue in 2002 to suggest that stranding costs should be recovered through an increase in their allowed revenues for the transportation business the Authority "made clear it considered this issue settled and closed" (see paragraph 2.60).

211. National Grid countered with evidence from another NERA consultant Mr Graham Shuttleworth who believed that it had never been feasible for the Authority to adopt a focused approach to asset valuation so that the supposed £2 billion gain for National Grid was illusory. They also pointed out that at paragraph 2.49 of the Decision the Authority appears to acknowledge that the adjustments made to the price control were not intended to compensate National Grid fully for any potential stranding. As Mr Turner put it in his opening submissions: "on everybody's understanding, Ofgem's and

ours, one way or another there is something sticking out of the duvet there that has not been covered in the price control, which is the risk of the asset stranding” (Transcript, Day 1, p.49).

212. We were not shown contemporaneous evidence that any particular element in the price control methodology (such as the unfocused approach to asset valuation) was expressly adopted as a *quid pro quo* for National Grid accepting the risk of asset stranding. We do not read Mr Smith’s evidence as asserting that the parties acknowledged this at the time of the 2002 price control review. The Authority showed us an extract from the 2002 Price Control consultation which they said makes clear that the Authority was genuinely considering whether the focused approach was appropriate. We accept that this is the case – but the document does not refer to potential asset stranding as one of the reasons why the Authority might choose to continue with the unfocused approach for National Grid’s benefit.

213. In our judgment, whatever may have been the views within the upper echelons of the Authority, the Authority did not generally conduct its discussions with National Grid on the basis that the price control in 2002 had adequately recompensed National Grid for potential asset stranding. On the contrary, it appeared from those discussions that the Authority did accept that asset stranding for legacy meters was still an issue which could legitimately be addressed by entering into arrangements which included payment completion terms. We were taken, for example, to the notes of a meeting between the Authority and National Grid in April 2002 attended by Ms Frerk among others. The notes record that Mr Shoesmith, one of the National Grid team, pressed the point about the discrepancy between the “legitimate recovery expectations” at the time the meters were installed compared to “the value that could reasonably be expected to be recovered under the present circumstances.” The notes then record: “[Ms Frerk] accepted that the basis upon which meter investments were historically made were different now to then. Citing examples such as ‘meter manufacturers’ prices were higher then”. There is no suggestion here that the Authority dismissed National Grid’s concerns on the basis that those issues were being taken care of in the settlement of the price control which was happening at about the same time.

214. In the May 2002 Consultation document there is a reference (at paragraph 4.16) to the way in which, in setting the price control, the Authority “acknowledged” that National Grid would face stranded costs as a result of stranding through reduced meter costs. They sought consultees’ views on (a) the likely scale of stranding as a result both of divergence of replacement values from RAV-values and of competition and (b) what elements of stranded meter costs should be compensated and how. The document does not indicate that the Authority thought that the price control settlement was the last word on the matter. In our judgment, the correspondence and meeting notes all point to the fact that the Authority did recognise, despite the bargain struck in the 2002 price control, that National Grid could legitimately impose early replacement charges in its commercial contracts in order to recover some of its sunk costs. National Grid understood this to be the case and acted accordingly.

215. We also accept National Grid’s point that it believed that it had the support of the Authority in trying to slow down the replacement of legacy meters in order to avoid the disruption to customers caused by a programme of accelerated meter replacement. We do not accept that the Authority’s concern was limited to a very rapid programme of replacement or “hell for leather replacement” as Ms Frerk put it. In her oral evidence (Transcript, Day 6, p.15) she described the concern of the Authority in the following terms:

“[The Director of Supply’s] focus was very much on “What were the consumer groups going to be saying about this, and how would it play?”. He had the team that managed consumer complaints coming to Ofgem. So, his focus was going to be, naturally, a short term one – if there are pictures in the Press of piles of unused meters, or a Mrs Smith saying “I took the day off work and I had to take it off again six months later to have an identical meter fitted”. So, his concerns would have been about the immediate impact on consumers”.

216. Even if some of the Authority’s senior management believed it was beneficial to replace working meters in the short term to push National Grid to reduce its prices, that was not the message that came across from the Authority to the industry participants. The industry understood from their discussions with the Authority that the Authority’s concern about the public perception of waste and inconvenience arising from opening up this market was more general than that. Again, National Grid interpreted this as a reason why the Authority would not object to National Grid and the gas suppliers

putting in place a contract which spread replacement over a longer period than might otherwise occur.

217. We reject the criticisms levelled at National Grid in the Decision that the company did not discuss the introduction of PRCs openly and frankly with the Authority. We have seen documents that were supplied to the Authority over the period clearly describing the key ingredients of the Legacy MSAs, for example a letter of 16 December 2002. In September 2003 National Grid sent to the Authority a six page summary of the terms of the Legacy and N/R MSAs setting out very simply and accurately how the contracts worked. The Authority's assertion that these were provided to the Authority for a different regulatory purpose and not for formal competition law clearance is unconvincing in this case. The recipient of the summary document was in fact someone who had been involved in the discussions at the end of 2002 and had, indeed, been the author of the note sent to the Management Committee in February 2003 recommending that the Authority continue to monitor the development of the proposals to ensure that the best interests of customers are served.
218. This is not to say that sectoral regulators are in all cases required to step in and sound some warning bells on competition grounds if they see market developments taking a worrying turn. Neither are we saying that if a company sends a draft contract out of the blue to an official within the regulator it can then claim to have tacit approval if the regulator does not take action. But the Authority was closely involved in and concerned about the roll out of the RGMA project from start to finish and there were internal meetings of the Authority at which National Grid's proposals for its contracts with the gas suppliers were discussed in detail. In our judgment, the history of the discussions in the particular circumstances of this case merits a significant reduction in the fine.
219. We have considered the other points in mitigation raised by National Grid, for example that this case raised a novel point and that the Authority's case against National Grid has changed during the course of the investigation. We also bear in mind that we have arrived at different conclusions from the Authority on a number of minor issues in the case, for example with regard to the effect of the Legacy MSAs on the roll out of smart

meters. However, none of those points affects, in our judgment, the level of the fine to be imposed.

220. Taking all these points into account, the Tribunal has concluded that a fine of £30 million properly reflects the seriousness of the infringement and the mitigating factor arising from the Authority's involvement with the development of the Legacy MSA.

221. So far as the directions given by the Authority are concerned, the operative part of the Decision (other than the penalty) reads as follows:

“...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;”

222. National Grid objects to the order in paragraph 3 that the company refrain from engaging in conduct having the same or equivalent exclusionary effect. We do not agree that this form of wording is unacceptably vague or inappropriate. That wording is frequently used in competition cases both in the United Kingdom and in Europe and is designed to ensure that the infringing undertaking cannot avoid the effect of the order by engaging in behaviour which is slightly different in form from that condemned but the same in economic effect.

223. However, we agree with National Grid's criticism of the Decision that it does not make clear whether the infringement found extends to the N/R MSA as well as the Legacy MSA and if so, why. In its Defence the Authority say that paragraph 1 of the operative part of the Decision is clearly a reference to the Legacy MSAs and that, since the N/R

MSAs do not include Take or Pay charges, it would be nonsensical to regard the sentence as including the N/R MSAs. Yet the Authority also says that there is nothing confusing or inaccurate about saying that National Grid has abused its dominant position by entering into the Legacy MSAs and the N/R MSAs even though there is nothing in the Decision to suggest that, taken alone, the Authority considers the N/R MSAs to be abusive.

224. We find that it is indeed confusing and inaccurate to say that National Grid has committed an abuse by entering into both the contracts even though there is nothing in the Decision which identifies what is wrong with the N/R MSAs. We do not agree with the Authority that it is artificial to divorce the assessment of the Legacy MSAs from the N/R MSAs. They are two entirely separate contracts with different terms. The outcome of this appeal is that National Grid will now have to renegotiate its contractual arrangements with the gas suppliers. It is unsatisfactory for the parties to be left uncertain as to whether the N/R MSA also needs to be renegotiated to bring National Grid into compliance.
225. In our judgment, the Decision does not contain any adequate reasoning to support a finding that the terms of the N/R MSA infringe the Chapter 2 prohibition of the 1998 Act or Article 82 EC. There is nothing to suggest that the payment completion arrangements in the N/R MSA suffer from the same defects as those in the Legacy MSA. It is true that meters which are replaced by National Grid in the course of a maintenance visit are then covered by the N/R MSA but we do not consider that this link of itself means that the N/R MSA is unlawful. We would therefore make it clear that the finding of abuse is limited to the terms of the Legacy MSA.
226. National Grid also objects to the time limit set by the Authority for its compliance in paragraph 4 of the operative part of the Decision. We agree with National Grid that the 90 day deadline is unrealistic in this case given the complexity of unravelling the Legacy MSA contracts with several different counterparties. But National Grid must comply with the directions as soon as practicable and report to the Authority on their progress within 90 days.

227. Finally, we note that the Authority refers in paragraph 6.64 of the Decision to the possibility that National Grid could have sought formal guidance from the Authority on the MSAs. Whether or not such formal guidance is now sought by National Grid we would expect the Authority to become fully engaged with the process of changing these contracts to bring them into line with the competition rules. It is most important that the restriction on competition resulting from the offending provisions of the Legacy MSA is lifted as quickly as possible.

IX. CONCLUSION

228. We mentioned at the outset of this judgment (paragraph [32]) that the Notice of Appeal in this case ran to some 300 pages. Paragraph 6.49 of the Tribunal's Guide to Proceedings (October 2005) notes that even in complex and difficult cases "a notice of appeal above the range of 50 to 75 pages should be regarded as exceptional". Unfortunately the substantial length of the Notice of Appeal seems to have set the benchmark for the amount of written material produced subsequently by the parties including lengthy skeleton arguments and supplementary submissions, a number of notes handed up during the course of the 11 day hearing (which one counsel described as an 'avalanche') and further voluminous written closing submissions. We recognise that limiting the hearing to 11 days meant that counsel were expected to compress their oral argument and that some of the notes handed up were in answer to queries raised by the Tribunal or to cover points which there was no time to cover orally. We have referred at a number of places in this judgment to a considerable range of points that we have not found it necessary to resolve. This judgment would have been substantially longer if we had described and dealt with every point raised. This case illustrates the importance of the parties focusing on the real issues in the appeal and limiting the exploration of peripheral issues.

229. In the light of the above reasoning, the Tribunal unanimously:

- (a) dismisses National Grid's appeal against the finding that the Below Line Rentals and the Premature Replacements Charges included in the Legacy MSAs constitute an abuse by National Grid of its dominant position, contrary to the Chapter 2 prohibition of the 1998 Act and Article 82 EC;

- (b) restricts paragraph 1 of the operative part of the Decision to refer to the Legacy MSAs only;
- (c) decides that the penalty imposed on National Grid should be varied and the Decision set aside to that extent. We fix the penalty imposed on National Grid at £30 million. There will be interest on the penalty to run, subject to any further submissions the parties wish to make, at 1 per cent above the Bank of England base rate from the date set for the payment of the penalty in the Decision, namely 21 May 2008, until payment or judgment under section 37(1) of the 1998 Act;
- (d) sets aside and varies paragraph 4 of the operative part of the Decision and orders National Grid, as soon as reasonably practicable, to notify the Authority of all the measures that it has taken to comply with the Decision and in any event to notify the Authority within 90 days of the progress it has made in this regard.

Vivien Rose

Professor Paul Stoneman

David Summers

Charles Dhanowa
Registrar

Date: 29 April 2009