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IN THE COMPETITION
APPEAL TRIBUNAL

Case No. 1099/1/2/08

Victoria House,
Bloomsbury Place,
London WC1A 2EB

26th January 2009

Before:

VIVIEN ROSE
(Chairman)
PROFESSOR PAUL STONEMAN
DAVID SUMMERS

Sitting as a Tribunal in England and Wales

BETWEEN:

NATIONAL GRID PLC

Appellant

- v -

THE GAS AND ELECTRICITY MARKETS AUTHORITY

Respondent

supported by

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

Interveners

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HEARING (DAY 8)

APPEARANCES

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

Miss Monica Carss-Frisk QC, Mr Brian Kennelly and Mr Tristan Jones (instructed by Ofgem) appeared for the Respondent.

Mr Christopher Vajda QC and Miss 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.

1 THE CHAIRMAN: Yes, good morning, ladies and gentlemen, Mr. Matthew. I think Professor
2 Stoneman has some questions that he would like to ask you.

3 Mr. DAVID MATTHEW, Recalled

4 PROFESSOR STONEMAN: Good morning. I had an interchange with your colleague,
5 Dr. Williams, on Friday, relating to the different incentive structures that might exist under
6 MSAs and under age related payments, and also the incentive structures under ownership.
7 I do not think we came to any particular agreement in that he did not agree that what I was
8 saying was correct. He did suggest that I might explore more with you as to whether the
9 incentive structures under MSAs were the same as incentive structures under age-related
10 contracts once one aggregated up he suggested you were the expert under the aggregation
11 and he would pass the issue over to you! (Laughter) I wonder whether you would like to
12 make any comments on whether you would consider the incentive structures are the same
13 under age related payments and under the MSAs? A. Yes, I think I can make some
14 comments on that. Perhaps if I could just start with a generic observation on how the MSAs
15 work. They obviously work at the level of the population of the legacy meters, so there is
16 no individual agreement for each meter individually and it follows from that that each meter
17 individually does not have an individual agreement to say this meter will be rented for a
18 specified number of years.

19 Going back to the efficient replacement and equality my understanding of that is essentially
20 what we are looking for is the real utility of the replacement meter less the real utility of
21 continuing to use the existing meter would need to be greater than the capital cost of the
22 replacement meter, that is the basic thing. This requires essentially that the gas supplier
23 ignores the rental that might have been agreed to pay on the existing meter for the purposes
24 of that decision.

25 How does the MSA actually work? We talk a lot about PRCs, but I actually find it easier to
26 leave those aside when we start to think about it and instead it just starts with the first part
27 of the early replacement charging arrangements in the MSAs. Those do not involve PRCs.
28 The first part involves what we call, or what National Grid calls “below the line rentals” and
29 what Ofgem calls the “take or pay” band. What are the essential features of that band? It is
30 that you pay the same rental in aggregate that you agreed to pay irrespective of the number
31 of meters you actually rent. So going back to replacement inequality, instead of having
32 price you pay on that meter on the left hand side and a PRC on the right hand side, there is
33 an aggregate rental on the left hand side and an aggregate rental on the right hand side, and
34 those two are always absolutely identical. It is simply the case you have agreed to pay for

1 all those meters and whatever you do, however many meters you replace, in whatever
2 pattern, you always pay the same amount. So the simple decision will always relate to the
3 relative utility of the existing meters relative to the new meters, and the capital costs of the
4 new meters.

5 I find that conceptionally interesting simply because you can almost imagine a simpler
6 MSA might have just had one huge BLR band, it might not have had average PRCs at all,
7 he would have just said “The agreement is you rent the whole lot for this price and if you
8 take them out earlier, fine, but you still have to pay the same rental you agreed”. I think in
9 that world it is absolutely clear that the inequality holds following aggregation. Now, what
10 does the average PRC do? It involves a slight complication but not much, and I think I
11 preface, if I just get into it, my remarks by saying that the relevant sphere of importance
12 here is actually the BLR band, almost all of Ofgem’s cost calculations, argumentation
13 principally relate to BLR payments, not to payments of average PRCs, and I think there is a
14 degree of common grounds that the average PRCs sit there in some rather more extreme
15 circumstances, but they are really not the key issue in the case. Nevertheless, if you ever
16 reach them what do they do? Essentially they are not linked to individual meters either, all
17 that happens is that when you go through some slightly more accelerated replacement paths,
18 part of your long term agreement to pay the same rental is just brought forward; it is slightly
19 more complicated than that, but that is essentially it. So it alters the timing of y our
20 payments but the substantive issue is pretty much the same as it was for the BLR band so
21 that is essentially how I see it.

22 Q Does this result depend in any way on your assumption that the MSA contract and age
23 related payments are both based upon the contract having the same life as the physical life
24 of the meter, i.e. we know with the MSA it is 18 years, but we know that many of the
25 meters have lives beyond that, but you have abstracted away from that and have allowed
26 that the two are the same. Does that affect your result in any way? A. Now, I am getting
27 slightly beyond my territory now, because we are into what is a social efficient replacement
28 incentive, but as I understand the point it is that if you have an agreement that covers only
29 part of the operational life of a meter, and there is a possible value at the end that has not
30 properly been captured by that agreement, and that I think could lead to inefficiently early
31 replacement, even with the payment completion but I am not absolutely sure, I do not see
32 that there is a big difference between the age related and aggregated approach, because you
33 could have an individual agreement for an individual meter, where that individual meter’s
34 agreement covers a period shorter than its operational life, and similarly in aggregate that

1 may also be true. So I do not see that there is a fundamental difference on the aggregation
2 point. But as to whether it actually works out as socially efficient, I am not absolutely sure.

3 THE CHAIRMAN: What do you mean by “socially efficient”? A. Again, I am on the edge of
4 where my testimony was. By “socially efficient” I think we mean that the replacement
5 incentives should be based on the absolute fundamentals of the value of the new meter, the
6 real value, i.e. what additional utility it gives you compared to that of the existing meter,
7 and that that should be compared with costs of the new meter, the capital cost of the new
8 meter.

9 PROFESSOR STONEMAN: I think I would take it in this context that “socially efficient” means
10 that you have the same incentives as the meter was owned. When you generate your result
11 you are using the profitability criterion and not the inter temporal arbitrage criterion, is that
12 correct? A. Yes, again this is not necessarily my result, but if I understand the point, the
13 point is there is a necessary condition for replacements which is that you reach a point
14 where the net benefits of the new meter outweigh the capital costs of the new meter.
15 Before that you would never replace, or you should never replace, but there may be benefits
16 in delaying that replacement decision because you might get even more net benefits by
17 doing it a couple of years later, for example.

18 Q But you have not taken that into account when considering the different incentive structures
19 under the MSA and under the age related contract? A. As I say, I have not because I
20 have not looked at that in great depth. Again I cannot immediately see a reason why the
21 aggregation would make a material difference to that.

22 Q Let me suggest why it might, either using the arbitrage or the profitability criterion. The
23 incentive structure to replace a particular meter will be different under MSA and an age-
24 related criterion because the amount that you pay in terms of PRC under the MSA is
25 different than it might well be under an age-related payment scheme. This is an individual
26 meter. So, it might be, for example, that a twelve year old meter under the MSA -- It might
27 be profitable to take that out under the MSA, but it might not be profitable under an age-
28 related payment scheme. What I am trying to say is that there may well be different
29 incentive structures to take out meters of different ages under the two schemes. A. I’m
30 not absolutely sure that’s right. Why would it make a difference? Under the age-related
31 scheme you’ve got a twelve year old meter. Let’s say it’s got eight years remaining of
32 operational life -- of remaining contracted life. So, under our age-related scheme, the key
33 feature is that we have a contract for each meter individually and the PRC goes with that
34 contract. So, this meter has eight years remaining contracted life, and if you replace it at

1 twelve years you will pay a PRC equal to the present value of eight years worth of rental.
2 Those cancel. Under the MSA this meter will go into the whole population. As we said,
3 under the MSA that meter does not have an individual rented contract. If we imagine that
4 you have already decided what you are going to do with all other meters - whether they are
5 going to be replaced or not, and then you say, "Well I've got this last one. Will I replace it
6 or not?", and you sit down, and you think, "Well, this meter has got eight years remaining
7 operational life. I'm going to take a view as to how good the slightly shinier new meter is,
8 and work out whether this is worthwhile or not". Now, everything else has already been
9 pre-set in this stylised example. So, we know what we are going to do with all the others.
10 If you replace that meter, then it will have some effects on the total number of meters you
11 take. So, essentially you rent one fewer for a period of, I suppose, possibly eight years (if
12 you'd planned other wise to rent it, to keep it going for that long). So, there will be a
13 reduction in the rental in aggregate, and there will be a PRC payable if you're in the
14 averaged version, or simply the same rental if you're in the BLR bands in aggregate. So, I
15 think whatever you do you will always be in a situation that the decision to replace that
16 additional meter will have an impact on the revenues you would have paid -- Sorry. -- will
17 have no impact on the revenues that you have contracted to pay. So, I think it always just
18 reduces back to the new-new/new-replaced.

19 Q I think this is where I disagreed with Dr. Williams. My view was that the amount that -- If
20 you decide to take that meter out under the MSA you do save eight years of rental, but the
21 amount that you pay in PRCs depends upon how many other meters have been taken out. If
22 you are above the glidepath it is free. If you are in the band, it is the BLR. If you have
23 taken out lots of meters previously you are below the glidepath and you have to pay the
24 PRC and therefore the cost of taking that meter out, albeit a twelve year old meter, depends
25 not on the characteristics, not on the age of that meter itself, but upon what you have done
26 previously. A. Sir, I think that's why I built up the example to say, "Let's assume you've
27 worked out what you're going to do with all the other meters".

28 Q No. I think this is a matter of assuming you know what you have done previously ---- A.
29 Yes, and I think possibly also have an idea of what you are planning to do. But, I think the
30 essential point is that as long as you stick to your glidepath -- Supposing you are always
31 going to stay somewhere near your glidepath, all else equal -- So, let us assume that we are
32 not going to go materially above the glidepath where things are slightly different -- I think
33 it is always the case that when you make a decision to replace that meter, the revenue that
34 you would save will equal the early replacement charges you would pay. I think this always

1 works. I think, again, if we go back to the BLR bands, which is the simplest world, it is
2 always the case that you pay the same revenue. So, it is automatically true that you look
3 solely at the underlying fundamentals.

4 Q Let me tell you why I'm going down this route: It is because in your calculations the
5 assumption is that when meters are taken out, either under an MSA or under an age-related
6 replacement scheme, you assume that the oldest meters are taken out first. What you also
7 do is to say to us that if the meters are taken out under the two incentive structures, then
8 your results do not hold -- or, they have to be modified. Shall we put it that way? They
9 have to be modified. Now, what I am worried about is whether, by assuming that the same
10 meters come out under the MSA and under the age-related scheme, you are actually saying
11 that the incentive structures under the two schemes are the same, and then using that to
12 prove that the incentive structures under the two schemes are the same. A. No. Perhaps I
13 can clarify. My report is looking at -- Let us assume we take a set of meters that we assume
14 are going to be replaced. So, my report does not go into whether it is actually desirable to
15 do this - it just says, "Here is a replacement path where we are going to replace the oldest
16 meters". It says, "If you take that replacement path, what are the early replacement charges
17 you pay under the MSA and under an equivalent age-related contract?" It shows that they
18 are going to be pretty much the same. Now, that is not the same thing as saying, "Are the
19 incentives identical if you move away from that?" because it is not saying anything about
20 what the incentives to replace those meters are at all - it is simply saying that for that path of
21 replacement the cost will be the same for both. Now, it is also true, under the replacement
22 path, that the revenue savings that you make under both will also be the same. So, if you
23 went through and worked out, "Well, these are the revenues that you've saved when you
24 pay all your age-related PRCs and these are the revenues that you've saved when you pay
25 your MSA PRCs", they are going to be equal to -- I think that's probably implicit in the
26 tables, but I can't quite recall. So, the replacement incentives for that replacement path -
27 and arbitrarily has been chosen here to be the oldest meters - will be identical under the two
28 approaches.

29 Now, if you were to look at a different replacement path -- So, instead of saying, "I'm just
30 going to do nineteen year old meters a year early", "I'm going to pick some random sample
31 of meter ages" -- There is one condition for this, but I believe it's the case that you will look
32 at those and you will find that the pattern of the early replacement charges might start to
33 differ, but the revenue savings that go with it will also differ, and they will always cancel
34 out. I think the one condition for that to hold is that you always replace all the meters that

1 are absolutely free to replace, and in the case of the MSA that means that you stick to the
2 glidepath, and in the case of the age-related approach it means you always do a twenty year
3 old meter if you can. I think under that condition, once you start looking at different ages of
4 replacements and mixing them up and matching them up, it is true that the early
5 replacement charges will start to look slightly different over time, but the rental savings will
6 always go with it. I think it really makes no fundamental difference in the aggregation.

7 Q I think we have probably gone as far as we can with that one. I want to ask you one other
8 question: At my request, National Grid produced a document for us that they put into court
9 on Friday. I do not know whether this has reached you. It is called 'Table Prepared in
10 Response to Question from Professor Stoneman on Day 3'. Now, this was my attempt to
11 try and get some idea of incentive structures under the MSA. So, what we do is to say,
12 "There is an eighteen year MSA in place. You can replace one-eighteenth of the stock each
13 year without penalty. There is then a BLR and then there is PRC". The rental equivalent
14 charge for the eighteen year contract is £10.27 per meter per year - that is, net present
15 values. A. Yes.

16 Q Then we say, "When that MSA is in place, what happens to the price per meter if we
17 replace equally over seventeen years? What is the price per meter in each of those
18 seventeen years?" Then the same for sixteen, fifteen, fourteen, thirteen -- working all the
19 way down. The numbers at the bottom are a bit ridiculous. Now, the reason for asking for
20 this was to say that the increase in the rental charge - say, from £10.27 to £10.70 or £10.70
21 to £11.13 - would give us some idea of the extent of the incentive to go for eighteen years
22 rather than seventeen, or seventeen rather than sixteen, or eighteen rather than fourteen.
23 That was the idea. Now, really I know it is not your evidence, but could you express an
24 opinion as to whether you feel that this does give us some insight into the extent of that
25 incentive to rent over 18 years rather than 17 or 16 when the MSA is in place? A. Can I
26 ask for clarification. When you say the incentives, do you mean for National Grid or for
27 gas suppliers?

28 Q For gas suppliers who are renting the meters? A. Is the question - sorry, can I just tell
29 you what I think this table does show you?

30 Q Yes. A. What this table shows is, in the first column with the £10.27, it is showing you,
31 as you say, a series of quicker replacement profiles and it's showing you that the flat rate
32 rental charge payable on every meter you actually rent over time will give you the same
33 present value of payments as you would pay under the MSA if you actually paid PRCs and
34 BLRs. So obviously that's going up over time because you get PRCs and BLRs starting to

1 become payable, so the rental equivalent needs to rise. Then the P&M price cap column is
2 effectively just showing you what the P&M price is. It goes up very slightly, but that's just
3 because the price itself is slightly higher in the first year than it is later on. So I think what
4 this is showing you is that for National Grid the present value of payments under the MSA
5 in year 14, where it is £12.08, are at that point equivalent to just simply having a P&M
6 rental price. National Grid, essentially, if the replacement path is over 14 years, is
7 indifferent as to whether it had a rental of £12.08 on every meter or if it had £10.27, but
8 you've also got PRCs to compensate for the fast replacement.

9 I think what this table actually shows you is that National Grid is better off under the P&M
10 contract, as long as the period of replacement is 14 years or more, or actually more than 14
11 years. So if imagine that under the P&M contract the replacement path was over 15 years,
12 then at that point National Grid would have been better off staying on the P&M contract in
13 terms of the revenues of generated.

14 Q All right. A. In terms of what it tells you about what gas suppliers want, to look at what
15 gas suppliers' interests are you have to look at what they have to pay for the other meters
16 that they take. In your more rapid replacement paths, what is happening is that under the
17 MSA obviously they're paying effectively a higher rental rate or a higher payment per
18 meter that they actually do rent. Of course, that is not great for them, because each time
19 they're accelerating their replacement they're actually having to also pay for all the new
20 meters they're renting. So there's a bunch of CMA meters coming in here. I don't think
21 you can tell from this column at what point they actually start to prefer it, but my guess is
22 that it would be a much shorter period of time that they would actually be any better off.

23 Q I think it is not here, but implicitly the CMO meters would be assumed to be cheaper than
24 the National Grid meters. There is some argument about that. In terms of the incentives for
25 a gas supplier having signed his contract – and I am talking here about the gas supplier, not
26 National Grid – to say, “If, having signed this contract, we were now to go for a 17 year
27 replacement strategy, how much more would it cost us to do that as opposed to follow the
28 18 year strategy we signed for?” it says 50p per meter – well, £10.70 minus £10.27, so that
29 is 43p per meter extra – taking account of all the PRCs and the take or buy ---- A. Yes,
30 and that's for the meters that they continue to rent.

31 Q That is for the meters they continue to rent. A. So in terms of their overall decision,
32 every time they are replacing National Grid's more quickly, it's not just that these numbers
33 go up, it's that they're also having to pay rentals on those new CMO meters.

1 Q Which may be more or less, but in terms of this contract we are sticking to National Grid.

2 A. I think, in a sense, this is illustrating what you call the double payments, effectively the
3 more meters you replace more quickly, you still have to pay for the ones that are there, so
4 their unit price is going up, and obviously you have to pay for the new ones. So it's pretty
5 unlikely that that's going to look like a very good strategy to replace those meters much
6 quicker than the glide path, I would guess, if you did the full analysis.

7 Q I am not sure whether there is any significance to the fact that the P&M price range, the cap
8 is below the MSA equivalent rental charge if you take a strategy of less than 14 years. I
9 think one could say that the EDF strategy, whereby they stuck to the P&M price cap rental,
10 they said, "We jacked the 18 years scenario because really what we have got in mind is six,
11 eight, ten, 12 year scenario, and it is cheaper just to stick to the P&M than to go with the 18
12 year MSA". A. Yes. Again, to do a full P&M comparison you would look at, assume
13 you did pay the P&M price, what was the value to gas suppliers, then you would have to go
14 through all – what path of the replacements are you going to go through and what degree of
15 price saving do you expect when you replace the meter from P&M terms, and there are
16 documents showing roughly what they thought those would be in EDF.

17 Q Obviously one could make it a great deal more complicated, but I was looking for
18 something simple. You do not think it would be too misleading to use this? A. Sorry, to?

19 Q To use this as an indicator of the incentives to go from a longer replacement to a shorter
20 replacement, once the MSA in place? A. Once the MSA is in place – this is not a
21 complete analysis, but once the MSA is in place this is showing a generally faster
22 replacement is not going to be desirable unless there are huge gains from the meters you're
23 replacing. This seems consistent with that.

24 Q Thank you very much.

25 THE CHAIRMAN: Just one question, Mr. Matthew. You said that if one imagines that this
26 contract does not have the PRCs but just has the take or pay, so that effectively what the
27 supplier is doing is saying, "Each year I will rent a certain number of meters, a declining
28 number of meters over the 18 years and I will pay you the rental for that", suppose that that
29 had been the contract that there had been an obligation to rent that number of meters and
30 nothing in the contract about what would happen if you did not rent those matters – if it
31 was a breach of contract, for example, not to rent those meters – is the economic effect of
32 that contract, where you simply promise to rent the certain number of meters each, the same
33 as the economic effect of a contract where you are free to replace the meters but you still
34 have to pay the rental for them? A. Well, in terms of the obligation to rent the volumes

1 that you're talking about, do you have in mind the situation where you say, "You have
2 agreed to rent X number of meters over time?" It says nothing about what happens if you
3 do not run that, but the contractual liabilities would be such that if they rent fewer, i.e. they
4 actually start replacing them then they would be subject to a claim for damages under the
5 contract and one would go to court and work out the losses accruing to National Grid. I
6 suppose in a way what the early replacement arrangements are doing is sort of pre-
7 specifying what those damages would look like. So in a way it is sort of similar, but I do
8 not know enough about precisely how the damages claim would work out to say that they
9 are identical.

10 Q Assuming that they were identical, assuming that the BLRs or PRCs are a fair estimate of
11 what the loss would be, is the foreclosure effect, as far as market entry by third parties, the
12 same in those two different contract scenarios? A. So if the damages are precisely the
13 same as pre-specified in the PRCs/BLRs?

14 Q Yes? A. And everybody knows this and it is transparent, yes, I think essentially the
15 savings would still be "I save my rentals and I pay my damages", rather than "I save my
16 rentals and I pay the PRCs" and if those numbers are the same then the incentives should be
17 similar, in practice I expect they would be different, because these things are in a way "Will
18 you please specify so everybody knows where they stand", whereas obviously there is
19 obviously uncertainty around going for a damages' claim, so the MSAs probably make that
20 an easier decision.

21 THE CHAIRMAN: Thank you very much, Mr. Matthew, we can release you.

22 MR. TURNER: May I?

23 THE CHAIRMAN: Sorry, re-examination.

24 MR. TURNER: It is very limited, there are only two questions.

25 THE CHAIRMAN: Well, however long it is, that is fine.

26 MR. TURNER: It is very short.

27 Re-examined by Mr. TURNER

28 Q Mr. Matthew, Professor Stoneman was asking you about socially efficient replacement
29 incentives, and madam chairman asked you what exactly do you mean by socially efficient,
30 and if I recall correctly Professor Stoneman said it is something where you have the same
31 incentives as if the meter was owned, and at that point you moved your head in an
32 indeterminate direction without it going on the transcript. (Laughter) Could you perhaps
33 clarify what your position is on that point? A. As I said, I have thought less deeply about

1 the nature of socially efficient replacement incentives than Dr. Williams, but I nodded, yes,
2 if it is consistent with those under ownership it seems to me a pretty good starting point.

3 Q The second question is that you are also then asked about whether your report was looking
4 at the costs and incentives for early replacement under the MSA structure on the footing
5 that you are taking out the oldest meters first. So in a sense you are assuming what you set
6 out to prove and from your answers that you gave, could you just clarify whether you were
7 saying if you relax the assumption that you take out the oldest meters first what, if any,
8 difference that does make to the costs arising under the Legacy MSA? A. Sorry, just to
9 clarify, as compared to an age related contract?

10 Q As compared to a situation where you takeout under that structure the oldest ones first?

11 A. Under the MSA it would make no difference as long as you would have followed the
12 glidepath anyway. The MSA does not care which meters it is that are taken out. Under an
13 age-related approach, if you are altering the pattern so that you are not doing always the
14 next oldest meters, then the pattern of early replacement charges you would pay might
15 differ. So if you do lots of young meters early on then you will get a different number than
16 you would have done in my calculations. My observation is to go with that the rental
17 obligation also would fall by an equivalent amount so the cancelling out effect is always
18 there.

19 MR. TURNER: I have no further questions.

20 THE CHAIRMAN: Now I can release you from the witness box, Mr. Matthew, thank you very
21 much.

22 (The witness withdrew)

23 MR. TURNER: That concludes the evidence for the appellant on the experts' side. There are
24 now the experts for Ofgem to take the stand.

25 THE CHAIRMAN: Yes, Miss Carss-Frisk?

26 MISS CARSS-FRISK: Madam, I then call Professor Grout to give his evidence.

27 PROFESSOR PAUL GROUT, Sworn

28 Examined by Miss CARSS-FRISK

29 Q Professor Grout I hope you can find, or will be helped to find, a file marked WS4, which
30 has your report in it. If you go to big tab 9 in that file, I hope you will find the report there.
31 If you go to a page marked 2157, the last page, I hope you will find your signature there,
32 and date, 18th June 2008? A. Yes, indeed.

33 Q Are you content for that report to be your evidence for the Tribunal? A. Yes, I am.

34 Q If you would just wait there, Professor Grout.

Cross-examined by Mr. TURNER

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- Q Professor Grout, may I begin by clarifying the extent of your expertise as respects the matters that you cover in your report. If we open your report and look at paras. 3 and 4, we see that you describe yourself as someone who has advised and published extensively in the areas of competition law and regulation? A. Yes.
- Q Do you have any expertise in engineering? A. Limited, to put it mildly, I think.
- Q Do you have any technical knowledge about the workings of gas meters of different types or brands? A. I had asked a large number of questions as a result of this case, because obviously as an economist you have some understanding of the things that would matter, that is the top and bottom of my experience.
- Q Was that before you wrote your report or afterwards? A. A little bit of both; I asked a lot of questions before I wrote the report, having sat here for several days I now know even more about meters than I knew before ----
- Q Any of us would wish to know! (Laughter)? A. -- and I have asked a lot more questions as a result of what I have learned to probe into what is going on, so I know something.
- Q To return to your core expertise as an industrial economist you apply economic theory and analysis to a set of assumed or known facts, is that a fair description of what you do?
A. Not completely. A large amount of economic analysis is concerned with expectations that people have of the future, and those are not known facts, and they drive most markets, indeed, in this one as well.
- Q But you take those expectations as the material upon which you then base your economic opinions? A. Yes.
- Q Can we look at para.6 of your report, where you set out what you have had regard to? You have had regard in particular to the notice of appeal, the decision and the report by Dr. Williams. Did you have regard to any other relevant documents? A. I had looked at one or two other documents, these are the core ones that I would claim to have looked at in great detail, so clearly I looked at the SSO and the SO to some extent.
- Q Before drafting your report? A. Yes.
- Q The impression that is given by para. 6 is that you were engaged by Ofgem to advise them after the beginning of these appeal proceedings and were not involved beforehand, would that be right? A. Yes, that is correct.
- Q And since preparing your report what further relevant documents have you been asked to read by Ofgem, or have you chosen to read on your own account? A. I particularly

1 looked at Dr. Williams' second report, and I've looked at that in reasonable detail, and I've
2 looked at certain other reports, but I wouldn't claim to have looked at them in great detail.

3 Q Did you read Ofgem's defence? A. Yes.

4 Q Did you see it in draft before it was finalised? A. Yes.

5 Q Did you read National Grid's reply? A. Yes.

6 Q Did you read the report of Mr. Shuttleworth? A. A little. I didn't read all of it, I don't
7 think. I read the bit that I've commented on.

8 Q You have not commented upon any of it? A. Oh, sorry. Yes, you're right. Is that right?
9 I've made comments on rateable value -- regulatory ----

10 Q You have made comments on an aspect which is ---- A. You are right, yes. You are
11 right, but that was driven by the fact that Mr. Shuttleworth had commented on it. Yes, you
12 are perfectly correct.

13 Q Subsequent to preparing your report you have read a part of Mr. Shuttleworth's report. A.
14 Yes.

15 Q Have you read the statement of Mr. Mark Way, National Grid's asset manager? A. Yes.

16 Q You have said that you have been in court, following the submissions and the evidence.
17 Has that been every day? A. I've been here for part of every day, yes.

18 Q But, you understand that you are here as an independent witness. You are not supporting
19 Ofgem's arguments, but giving your assistance to the Tribunal. A. Yes, Indeed.

20 Q Now, at para. 7 of your report you say that the factual background which underlies your
21 analysis is drawn from the Decision document. Did you not also obtain information on the
22 factual background from the Notice of Appeal where that provided additional relevant data?
23 A. Yes. I have looked at that, but I'm not quite sure of the timing of the things that you are
24 talking about. But, yes, I have looked at the Notice of Appeal.

25 Q Before preparing your report you read and considered the Notice of Appeal is what it says
26 in para. 6(a) of our report. A. Yes.

27 Q I am assuming that is correct. A. Yes. Yes.

28 Q So, did you, for example, see in the Notice of Appeal information about how older meters
29 are not clustered together in similar localities around the country? Was that a fact that you
30 noticed when reading the Notice of Appeal? A. Yes.

31 Q Let us turn, then, to the first topic which you address - Section C - Normal Competition.
32 This begins at para. 9 and following where you deal with three means of payment
33 arrangements which you say National Grid could have adopted consistently with normal
34 competition, to meet competition from the CMOs. Yes? A. Yes.

1 Q Above para. 10 we have the first of those - up-front payment and transfer of ownership. If
2 we turn the page, above para. 18 we have rental with age-related PRCs. By that I take it
3 you mean PRCs based on the ages of individual meters. A. That's right, but not totally
4 based on the ages of individual meters, because obviously it would depend on policy meters
5 and things of that sort.

6 Q Above para. 28 your third means is rental without PRCs. A. Yes.

7 Q Let us go through these in turn. Before doing so, go back to para 8 with your definition of
8 normal competition. You see that in para. 8.

9 "By normal competition I take to mean a market situation in which each and every
10 firm is subject to competitive constraints that are sufficiently strong that no firm
11 can abuse significant or substantial market power".

12 A. Yes.

13 Q Is that a definition that you have taken from a textbook or from some other source which is
14 not referred to in your report? A. It's the definition that I'm working with. It's certainly
15 not been taken word-for-word from any textbook.

16 Q You came up with that yourself? A. It's the one that I carry in my head. Where it's come
17 from it's very hard for me to say. It's not taken word-for-word from any textbook. It's just
18 what I mean by it.

19 Q By 'normal competition'. A. By 'normal competition'.

20 Q Now, according to your definition in a market situation where you have a firm which has
21 got significant market power it would seem, strictly speaking, that there cannot be normal
22 competition - looking at what you have described in para. 8. A. Well, let me tell you
23 what I mean by it, and then we can see. As far as I'm concerned, you have a firm and there
24 are sufficient competitive constraints on the firm that it cannot engage in activities that
25 would be deemed to be abuse of market power if the firm had sufficient market power.
26 Now, whether that's a legal concept -- whether it was dominant or not, I don't know. This is
27 just a sort of working -- It's not a legal definition that I'm using.

28 Q But you would accept that even for a firm which does have significant market power, there
29 are normal methods by which it can compete? A. I'm assuming, for the definition of
30 'normal competition', that there exists sufficient competition that within that it would not be
31 able to abuse. I mean, there may be other methods of competition that would not meet this. I
32 mean, the firm has significant market power it doesn't mean to say that it has the complete
33 market. So, there would still be elements of competition going on, but they would not

1 necessarily be strong enough to ensure that the outcome met the conditions that I have
2 defined as 'normal competition'.

3 Q Can we agree that even a dominant firm - or a firm with significant market power - can
4 engage in conduct which is competition on the merits, which is, in that sense, normal
5 competition? It is able to do that. A. It's possible that that can happen, yes.

6 Q Such as the three methods that you then go into in your report. A. Yes, that's right.

7 Q What constitutes competition on the merits can depend on the context of the particular
8 industry you are looking at. A. Yes.

9 Q So, looking at para. 21 of your report, what you do here is you focus on a specific kind of
10 factual situation and if I am supplying some durable goods on a rental basis it might be
11 competition on the merits to provide the customers pay some sort of cancellation fee if they
12 want to get out before the end of the period. A. Yes.

13 Q If, on the other hand, I am a manufacturer selling something like ice cream (some consumer
14 product like that), it might not be competition on the merits to require retailers to enter into
15 exclusivity deals with me - even if that was a standard practice in the industry. A. That
16 could be true, yes.

17 Q Now, let us go back to up-front sale at para. 10. You make the unimpeachable point that the
18 most common and perhaps the most obvious way of paying for products which share many
19 of the characteristics of meters is sale by way of an up-front payment. Then you give a
20 number of examples, such as in-built washing machines and dishwashers. A. Yes.

21 Q So, if we go to para. 13, you make the point there that it would have been consistent,
22 following the opening up of the market to competition, with normal competition, for
23 National Grid to have sold the meters to gas suppliers for a one-off payment. A. Yes.

24 Q That would have been National Grid engaging in a normal method of competition. A.
25 Yes.

26 Q You would agree that if an item is sold by one person to another for a one-off payment that
27 the mere fact that another seller is then denied the chance to make a sale, because the
28 buyer's requirements have already been satisfied, is not itself restrictive of competition on
29 the merits. A. Yes, I think that would be correct to say that.

30 Q Presumably you at home have some consumer durables - you have a washing machine or a
31 dishwasher. A. Indeed, I actually purchased a built-in washing machine and dishwasher
32 when I was writing the report. I'd just purchased a new property.

33 Q Well, that brings to life your evidence. (Laughter) From time to time then you have
34 replaced these items and you were doing so at the time of your report. A. Yes, indeed.

1 Q When you upgraded, was it a dishwasher or a washing machine? A. I purchased a new
2 house - actually at the top of the market, and I hope you won't hold that against me as an
3 economist. I have young twins and so there was a reason to do it. So, I replaced
4 everything.

5 Q Yes. When people upgrade a durable asset of that kind you get the benefit of the latest
6 model, but, of course, you have to pay for that as well. A. Yes.

7 Q Your replacement incentives are distorted by the fact that you have paid for the first product
8 - the original one - upfront by way of a sale. A. No.

9 Q So, replacement incentives under sale by way of up-front payment are normal. A. Well,
10 it would depend on the price, of course, but putting that to one side ----

11 Q Yes. The price is not – yes? A. Yes.

12 Q Would you agree with what you heard this morning that they could also be as efficient from
13 an economist's perspective? A. I suppose I'm going to be a difficult economist at this
14 point, and say one of the difficulties I have with a lot of the case is the conversation that
15 there is "an" efficient level of replacement in these markets, because my view of this is that
16 different parties would have different views as to when it's appropriate to replace the
17 various assets based on legitimate differences in expectations and things of that sort, and the
18 mechanisms that would typically bring these differences into line do not hold in this
19 particular market. So the terminology "efficiency" in terms of replacement is something
20 that, personally, I think one has to be very cautious on. You have to condition it on who is
21 replacing, who reviews it. I would add at this point to talk about perfect replacement is one
22 step further worrying in this context, and I can elaborate on this at some point if you wish.

23 Q What I am talking about at the moment by way of my question is merely where one person
24 sells an item to another, that the buyer then, broadly speaking, and without complications
25 which you no doubt have in mind, is in a situation where his or her replacement incentives
26 can be viewed as efficient? A. Yes, that would be.

27 Q In your report at para.10 you refer only to up-front payment, and I want to explore for a
28 moment the importance of the timing of a commitment by the buyer to pay for the goods.
29 So instead of sale by way of up-front payment, assume that you arranged to pay the price
30 for your dishwasher or washing machine in a series of instalments under a credit agreement
31 and you are legally committed to make those payments whatever you then do with the
32 washing machine or dishwasher. That would not make any difference to your replacement
33 incentives compared with an up-front payment, would it? A. I think it may do. In a
34 world of perfect markets with perfect certainty then I think you're right because the present

1 value of the cashflows and the instant payment could be set the same. Clearly, if you are
2 entering into a contract, particularly a longer contract, then if you're paying every month
3 there are things that might happen that mean that these things wouldn't necessarily be the
4 same. At a broad brush level I can agree with you.

5 Q Yes, you have committed to pay for the product ---- A. Yes, but that doesn't ----

6 Q -- the question of whether you actually allow the money to leave your bank account and
7 enter the bank account of the seller ought not, generally speaking, to affect your
8 replacement incentives, if you are permitted? A. Even that's not true. If you pay up-
9 front you have made a payment, the transfer of that money is changed and that's end of the
10 story. If you enter into a long rental agreement to pay this, then things may happen along
11 the way. It doesn't follow that they're exactly the same. I agree with the broad brush point
12 that you're making, but you may renegotiate the contract. I have my washing machine and
13 I've agreed to rent it for five years paying a monthly payment, as opposed to paying up-
14 front, and then there is a bit of a dispute about whether it's working properly or not and we
15 may renegotiate – there are all kinds of options. I don't think one can say unambiguously
16 these things are the same. I agree on the broad brush point.

17 Q Let me take the broad brush point one step further. Suppose that you are not selling but you
18 are making a long term contract for the rental of this product, which is going to cover the
19 vast bulk of its useful life. Then suppose that the contract for rental does have cancellation
20 charges to complete the agreed payment for the full term of the agreement. A. Yes.

21 Q If you want to get out early you have to make the payment, less any avoidable costs to the
22 extent that there are any at the point of exit. The replacement incentives under such a
23 contract would be similar as in the situations we have just been describing? A. Broad
24 brush, yes.

25 Q So let us then return to the market situation which you are positing in your para.8, which is
26 one in which each and every firm is subject to competitive constraints sufficiently strong
27 that no firm can exert significant market power. Let us assume that we have that situation
28 and we have a market where the providers are competing against each other, not to sell
29 impulse ice cream or anything like that, but to sell long lived sunk cost assets, such as
30 indoor washing machines, at a particular time, and there is very fierce competition between
31 providers to take what you were saying a little while ago. Assume, if you like, that you
32 have perfect competition and you arrive at an outcome where the price which is agreed
33 leaves the supplier who gets the business in a situation where they break even, taking into
34 account their cost of capital. A. Yes.

1 Q So that is an ultra competitive situation – yes? A. Yes.

2 Q In such a situation the purchaser might have a credit agreement under which he is able to
3 defer payment of the full price until a later date? A. Yes.

4 Q Assume also that technology is advancing fairly quickly in this industry or in the washing
5 machines, and the cost of supplying these machines is coming down at a rate over time. So
6 we have a sign where the payment that was agreed with the customer was struck under
7 conditions of fierce competition – yes? A. Yes.

8 Q And the price was competitive at that time. A. Yes.

9 Q Later on, during the life of this credit agreement, the price begins to look high compared to
10 what is on offer from others for new machines at that later time. That, in itself, does not
11 make the original agreed price uncompetitive? A. That would be true. Could I just check
12 one thing here. You are saying it's a rental agreement. At the end of the period who owns
13 the washing machine? Well, presumably it's my washing machine at that point, is it, or
14 does it stay with the person who I've entered into the rental agreement with? That's clearly
15 going to make a difference.

16 Q Explain why that will make a difference? A. Because that would affect the price and
17 therefore may affect the extent to which I'm unhappy with my washing machine and decide
18 to replace it.

19 Q I am staying now only on the question of whether the price can be deemed to be
20 uncompetitive because later on during the course of the agreed stream of payments which
21 you have to make, the price of other models on the market has come down. A. Okay –
22 how can I put this: it matters a lot who owns the machine at the end. If the machine stays
23 with the supplier in terms of the ownership then it is very probable that at the end of the
24 payments, if I sign up for three years, that several customers will continue to rent at some
25 point on whatever the rental arrangement is, in which case the price that would go into the
26 rental contract would not be the price that would cover the cost of the asset over the three
27 years because clearly some people will rent for many, many years. Indeed a lot of fixed
28 assets are put in position on the understanding that this is exactly what will happen. There
29 are still people in the country with hard wire telephones which one would have thought
30 would have been replaced years ago. Consequently, the price that would go into the
31 contract would not be the price that would cover the cost of the asset over three years. If it
32 was a competitive market this would be what I've called in my evidence a "one sided bet".
33 The worst that can happen is you get the whole cost of the asset covered, and if you're
34 lucky, and this happens a lot in markets of this sort, you would continue to earn rental

1 money beyond the life of the asset. So the price that would go into the contract would
2 actually not probably cover the total cost of the asset, it would have to be balanced between
3 some people who would only pay the lower figure and some people who would rent for
4 much longer.

5 Q If you look at para.11 of your home, it is bringing this home, let us say that we are talking
6 about gas credit meters, DCMs. A. Yes.

7 Q We are talking about assets where the re-use value of the asset is very low or zero.
8 A. Yes.

9 Q So that is the kind of asset that we are talking about now. Can we agree that when you are
10 trying to assess whether the agreed terms of payment are higher or lower than a competitive
11 level, the payment that you would need to make originally for the rental of such an asset,
12 looking at the payment levels later on when new technology is beginning to arrive is a part,
13 but only a part of the picture and that the full picture requires at least that you take into
14 account the time profile? A. Yes, I would be happy with that.

15 Q Now, let us turn to your example of rentals with PRCs, you can leave aside the sale
16 analogies and look at “Rental with PRCs, which begins at para.17 of your report”, and it is
17 really at para. 20 and following that you deal with what features a rental contract might
18 have in normal competition. I would like to leave aside for the moment the question of the
19 form of such charges, which you also address, age related or otherwise. You would accept
20 the principle that termination charges as such are consistent with normal competition in a
21 market such as the one we are confronted with? A. Yes, conditional on contracts you
22 would not be surprised to see some form of payment completion, yes.

23 Q In deciding what the form of a PRC, and you understand what I mean by that, the
24 cancellation charge ---- A. Yes.

25 Q -- might be under conditions of normal competition. Your approach is to look first in paras.
26 22 to 24 at the perspective, the point of view of National Grid, the meter provider and then,
27 para.25 you turn to look at the point of view of the gas suppliers? A. Yes.

28 Q Let us start with what you say about National Grid, and its point of view. You say at
29 para.23:

30 “In normal competition, NG would seek to ensure that, whenever a gas supplier
31 considers replacing an NG meter, it is more attractive to remove NG’s low value
32 assets rather than NG’s more valuable assets.”

33 You go on to say:

1 “These factors suggest that, from NG’s point of view, if there was normal
2 competition the termination charge would be age-related.”

3 You say: “ These factors suggest” at the beginning of para. 24, by using that word “suggest”
4 are you saying that the factual assumptions which you refer to in paras. 22 and 23 do give
5 you a basis to express your expert opinion about what structure of charges one would expect
6 to see from National Grid’s point of view? Those are enough? A. My answer to this
7 would be that one of the pressures on National Grid if one held everything was constant
8 between an MSA type arrangement and an age related equivalent, it would be more
9 attractive for National Grid to go for an arrangement that made the suppliers replace their
10 less valuable asset because these assets will continue to earn money beyond the life of the
11 MSA and it would be in National Grid’s interest to ensure that the value of the stock it is
12 left with at some point in the future is of higher value than lower value. So that is one of the
13 big drivers, I am not saying it is the only factor because what will happen in normal
14 competition is that there will be a price struck between gas suppliers and National Grid, the
15 gas suppliers will be interested in protecting their customers’ interest to the extent that it
16 affects their profits, and there will be other factors. Just viewed from National Grid’s point
17 of view, if everything else is constant they would have an incentive to keep the stock of
18 assets over time at its highest value so that if the MSAs, for instance, run out, or the age
19 related contracts run out the future income that is earned would be on a higher stock of
20 valued assets than a lower stock.

21 Q You are saying that is the only factor from National Grid’s point of view? A. No, I think
22 I said the exact opposite, I think I said there are many factors.

23 Q You said there are other factors, but from National Grid’s point of view ---- A. No, no,
24 from National Grid’s point of view there will be other factors as well.

25 Q Yes. A. But that is clearly an important factor. They ought – I am not saying they did –
26 but if they were going through the calculus and I was advising them, I would be asking
27 them to think about what is going to happen to the value and the use of these assets after the
28 life of the MSAs, and it clearly would make sense, choosing between alternatives if
29 everything else was constant to go for the alternative that maximised the value of those
30 assets when they earned money beyond the existing contractual arrangements, it would be
31 one thing that would be primarily in their mind I would have thought.

32 Q Absolutely. A. I don’t know, but ----

1 Q I have your answer. You say it would be one thing, where do you address in these
2 paragraphs any of the other things that National Grid might legitimately take into account?
3 A. I don't.

4 Q If we focus on National Grid I would like to take you upon that then because National Grid
5 also has an incentive when it is making such arrangements to avoid incurring unnecessary
6 heavy transaction costs in operating a system of exit charges, at least that would be
7 legitimate? A. Yes.

8 Q And do you remember noticing, when you read the notice of appeal before preparing your
9 report, the extended discussion of National Grid's internal contemporaneous thinking about
10 the structure of PRCs to use? Do you remember seeing that? A. I remember seeing some
11 of it, I cannot recall it all, but I am sure you will enlighten me.

12 Q Can you remember anything about it? A. There was a discussion about the extent to
13 which National Grid knew about the age of their various meters, it was a particular point
14 that I remember being important in this discussion.

15 Q You do not recall anything more than that from their internal thinking? A. I remember –
16 this is not quite the PRCs, but I do remember that they had thought about selling the meters.
17 I cannot remember the other bits that you feel are relevant, but it may helpful ----

18 Q Can we just have a look at some of those other bits. Have you got bundle CB1 there? If we
19 turn in CB1 to the notice of appeal, which is the second page, and go to p.203 we are in the
20 section in which National Grid is describing what it thought about when deciding on the
21 structure of the PRCs to be included in the Legacy MSAs. Now that you see this, do you
22 remember it? A. Yes, I can remember looking at it, yes.

23 Q So we see at para. 115 the reference to a slide presentation which you might have heard
24 being referred to in opening submissions, in which the National Grid official considered the
25 pros and cons of different PRC structures, and he says (the quote is at para.115):
26 “... ‘I think it is pretty clear that the "averaged" or "single charge" approach is
27 preferred:
28 (i) it is simpler operationally...
29 (ii) it is preferable from a legal perspective;
30 (iii) shippers/suppliers will prefer it;
31 (iv) it is less susceptible to gaming by shippers/suppliers’.”

32 Then if we turn over the page, there is another longer extract which you can just read for
33 yourself, in which the National Grid official is thinking about how best to approach the
34 structure of these PRCs. As you point out, Professor Grout, I think we see in the fourth

1 bullet down, the point that there were not perfect correlations between unrecovered values
2 on individual meters, the ages of the meters and when expect them to be replaced, and in
3 addition a large number of meters whose age is not known? A. Yes.

4 Q He then goes on:

5 “It is also an inherent feature of Project Jam that although customers are incentivised to
6 remove meters at no more than a defined rate, they have some flexibility over which meters
7 they can remove.”

8 So we see there, do we not, an importance perceived by that National Grid official of giving
9 the gas suppliers some flexibility over which meters they can remove? A. Yes.

10 Q If we turn to the facing page, in para. 119 he goes on and starts to think about the problems
11 that might arise with an approach which ties an early replacement charge to the particular
12 type and age of each meter - a sort of Glass’ Guide for meters. He says, we see from the
13 third bullet down,

14 “It has three main difficulties. There are a large number [2 million] of ‘unknown’
15 meters - How should we treat these? The replacement programme would be
16 updated regularly (at least every year) leading to significant effort to re-publish the
17 guide. The approach is overly complex so we would struggle to develop systems
18 to implement it”.

19 There we see, do we not, two problems being highlighted: first, the problem of how to treat
20 meters of unknown ages; second, the difficulties and costs perceived to arise operating a
21 system of age-based PRCs in practice. That is how he is thinking about it. A. Yes.

22 Q Now, as to flexibility, were you in court last Thursday to hear Mrs. Frerk? A. Yes, I did,
23 yes.

24 Q There was a discussion about a slightly different meaning of the term ‘flexibility’, when
25 Ofgem was discussing flexibility with National Grid, to mean essentially the surrender of an
26 additional wedge of completely free meters above and beyond what would normally be
27 expected to be replaced in the ordinary course? Do you remember that? A. I can’t
28 remember it exactly, no, but I’m perfectly happy to take from you that that was what she
29 said.

30 Q Let us just look at that for a moment. That is WS2, Tab 22, p.1214. If you look at the
31 bottom there, there is a heading ‘Flexibility’. It is part of a dialogue between Transco,
32 National Grid and the regulator. At the foot of that page National Grid is saying,

33 “However, if shippers still wanted to replace meters before the end of their useful
34 lives, this would increase Transco’s costs. Transco would wish to recover these

1 costs, either from Ofgem by way of compensation for stranding, or from shippers
2 through premature replacement charges or higher rental charges. For example,
3 Transco could give shippers the ability to replace up to 200,000 meters per year
4 over and above the meters that would ordinarily be replaced, but this would imply
5 higher annual rental charges than would otherwise be the case --“

6 So, also a second meaning of flexibility, at least there, is giving gas suppliers in such a
7 contract a large amount of what we may loosely call ‘freebies’ - in the sense of the ability to
8 replace large numbers of additional meters for free. A. Right. The ‘large’ I am not so
9 happy to sign off on ----

10 Q No. No, or course not. A. But the rest of it is no problem.

11 Q Yes. Now, you would agree that the desire for flexibility, at least in the narrower sense in
12 which the author of the National Grid document appears to be using it, of giving gas
13 suppliers a choice about which meters to replace on the ground for free at any time, and the
14 desire to avoid transaction costs, helps to show why National Grid and gas suppliers alike
15 might legitimately have preferred a simple flat rate system of PRCs over what they regarded
16 as a possibly overly complex approach of age-related PRCs based on the type and age of
17 each meter. A. I can see that those are relevant factors, and I wouldn’t claim that they
18 are not. They are conditioned, I should say on the knowledge that National Grid actually
19 had of the age of their meters. The whole thing is conditioned on the assumption that they
20 knew very little about their stock, which may itself have been something that is a reflection
21 of the competitive environment in which they were operating.

22 Q But also, Professor Grout, it is not only knowledge of the age of the stock. If you look
23 again at p.205, underneath the reference to the unknown meters there is a reference to the
24 difficulties of operating an age-based system as being overly complex. “So, we would
25 struggle to develop systems to implement it.” Let us assume that they knew the ages of all
26 the meters. They are drawing attention to an additional consideration here, which is the
27 complexity of operation. That would be a legitimate consideration as well. A. Yes.

28 Q Can I turn then, more particularly, to the perspective of the gas suppliers in all of this, which
29 you deal with as the next issue in your report. Did Ofgem ever invite you to look at any of
30 the factual witness evidence from National Grid attached to the Notice of Appeal before you
31 wrote your report? A. I can’t recall this. I may have seen some of it, but I can’t recall.

32 Q Do you recall, for example, the witness statement of Mr. Neil Avery, whom you might have
33 heard giving evidence? A. No, but I heard him give evidence here. I certainly didn’t go
34 all through his evidence.

1 Q So, could we pick up Mr. Avery's statement in WS1 at Tab 2? If you go to paras. 81 to 83 -
2 - You see here that he is explaining at the top of para. 81,

3 "British Gas wanted an arrangement that allowed for free replacement of a certain
4 number of meters each year and under such an arrangement there would have
5 needed to be some process for identifying which of the hundreds of thousands of
6 meters that had been removed was the one that took British Gas over the glidepath
7 allowance and on which the age-based PRC was payable".

8 Then he refers to how National Grid considered that that calculation should have been done.
9 At para. 82 he refers to a significant number of meters without clear age data.

10 "-- so basing the charge on the actual age of the meter removed would be likely to
11 lead to a large number of disputes. If there was an individual PRC based on the
12 age of a meter the logistics for reconciliation would have been a nightmare. We
13 would have been employing an army of administrators to do the invoice
14 reconciliation. Practically it would not be possible to manage an invoice
15 reconciliation process on an individual meter basis given the data inaccuracies and
16 the numbers involved (we were talking about around 13 million meters)".

17 He goes on in para. 83, if you read that to yourself, to talk about how, in the last sentence,
18 "When comparing the pros and cons of an age-based or an average system of
19 calculating PRCs the additional administrative cost of managing an age-based
20 system has to be factored into the calculation".

21 Now, can we agree then that both National Grid and British Gas were referring, on the
22 factual evidence, to age-based PRCs as involving heavy and ongoing transaction costs?

23 A. Yes. Conditional upon the information that was available there are clearly transactions
24 costs as one would expect.

25 Q From their perspectives they were both describing in different words how their systems
26 would struggle to accommodate such a structure - the age-based structure. A. Yes.

27 Q Are those the sort of considerations you would expect to be taken into account by meter
28 providers and gas suppliers when they are considering the most cost effective way to
29 arrange cancellation charges and the brand new kind of contract? A. Well, I agree
30 entirely that one has to take transactions costs into account. As an economist, one of the
31 things that worries me about this is that if you think of an incumbent in a position of this
32 sort, an incumbent has assets, and some assets are more likely to be attacked by a
33 competitive market than other assets. Clearly, which ones are one possibility for what
34 would be at risk in such a scenario would be the older assets that are performing less well,

1 etc. So, if you were advising an incumbent with significant market power, as an economist
2 I would be saying to them, “One of the things that would be jolly good to do would be not
3 to have the information as to which assets are actually weak and at risk in the market place”.

4 Q You are suggesting that you would advise a client that it would be a good thing for them not
5 to have certain information? A. If I were hired by an enterprise, not in the circumstances
6 that I am here, but simply as an economist, and they say, “We are worried about
7 competition, we have a series of assets that are at risk in the market price, it’s expensive to
8 collect the money that identifies which ones these are”, my advice to them, as a client, to
9 maximise their profits, whatever the ethics would be for them, I would just say to them,
10 “Clearly, if you wish to maximise your profits” – one would not actually collect this
11 information, I’m not making any moral statement, that would just be to say, “If you have
12 the two alternatives, this one looks like it will give you a lot more profit than the other”.
13 The issue here, which is a concern, is, if you have a dominant enterprise that is saying, “We
14 haven’t got this information as to which the old assets are that may be going to be attacked
15 by competition”, I don’t know how to treat this information, the transaction’s cost, to go
16 with it.

17 Q Professor Grout, we are not dealing here with a document that was submitted by National
18 Grid to the regulator to explain this position, we are dealing here with a purely internal
19 document. Regardless of how you might advise a company to behave, can we at least take
20 it that it represents the good faith assessment of the company internally about the difficulties
21 and costs it appreciated? A. Oh, yes, I have no problem, it’s just conditional on the
22 information – the whole issue is that the information about the asset stock is very poor.

23 MISS CARSS-FRISK: I am sorry, madam, but fairly obviously it is impossible for Professor
24 Grout to comment on that sort of matter.

25 MR. TURNER: My friend can make comments at the end of the cross-examination. (To the
26 witness) You say at para.23 of your report, if we return to that ----

27 THE CHAIRMAN: Is that a convenient moment, Mr. Turner, to take a five minute break?

28 MR. TURNER: It is a convenient moment, madam.

29 THE CHAIRMAN: We will come back at noon then.

30 (Short break)

31 MR. TURNER: Professor Grout, we were saying a moment ago that you might say it would be in
32 the interests of National Grid not to know the ages of its meter stock? A. I was being a
33 little more cautious in putting it in the context of an incumbent that might be dominant in a
34 market. The same argument may apply to National Grid as well. If I can just make the

1 point, what I am suggesting is that – you are making the point that there may be significant
2 transactions costs associated with this approach. My point is that it is very hard to look at
3 the existing situation – I should say I am talking now as an economist and not a lawyer – it
4 is very hard to look at these costs and know whether these costs would have already been
5 incurred by a company in normal competition in the every day nature of knowing the value
6 and age of its asset stock. It's quite clear here that there seem to be meters – you are
7 suggesting to me and the evidence suggests that it may be expensive to deal with this issue.
8 My point, and I do not think it is a very controversial one as an economist, is that if you are
9 susceptible to a particular part of a market, lack of information of which assets sit in that
10 part, would help you protect your profits. So I can't answer whether these really are
11 substantial. The authors are saying they think there are transactions' costs associated with
12 implementing a PRC in the current position. I have no idea how many of those
13 transactions' cost would already have been met had the company had a much better idea of
14 the value and age of its stock. Competitive pressures might push them that way, but if there
15 aren't competitive pressures the company could have had an incentive not to find that
16 information. I just don't know how to deal with it. I'm not making a strong point, I think,
17 but you just have to be cautious how you interpret these transactions' costs in terms of the
18 market environment.

19 Q Let me pick up two points arising from that, Professor Grout. First, I think you have seen
20 that we are talking about the future costs of operating the system that would arise, which
21 were affecting the authors of the note? A. That's true, but again that's potentially
22 conditional. I can't see there's a distinction between the forward looking nature of
23 operating the existing Legacy stock, which isn't that different from the current position that
24 I'm describing and the transactions' costs of operating meters that are in place when you
25 know there will be age-related PRCs applied in a position that would be equivalent to
26 normal competition. So the forward looking nature of it for the meters that are already in
27 position falls under the same box of uncertainty that I have of others. It depends what you
28 mean by forward looking. The transactions' costs associated with trying to understand the
29 age of a meter at a particular address when the meter has been put in place in the knowledge
30 that this would be written into a contract, I find it very hard to believe that these would be
31 enormous transactions' costs. You would just keep a register, a very detailed register, in the
32 full knowledge that this would be going into a contract.

33 Q Yes, it was not something you investigated though? A. No. It's either an economist or
34 just common sense.

1 Q Let me compare what you were saying a few moments ago about how in certain
2 circumstances it might be better for National Grid not to know the age with what you say in
3 para.23 of your report, where your opinion is that in normal competition National Grid
4 would seek to ensure that it was more attractive to remove the low value assets, which here
5 you take to mean the older assets, than the more valuable assets, which here you take to
6 mean the younger assets. In your report what you refer to is that it is in National Grid's
7 interests to know the ages of its stock so that it can take account of estate management
8 considerations. A. To the extent that they know the age of the stock it would make sense
9 to have an age-related PRC that incentivised the competition therefore to replace the older,
10 lower value assets, rather than the newer ones. The question you were asking was, how
11 expensive it is to get into that position to actually implement such a contract. I am just
12 talking as an economist that if it isn't a normal competition environment one has to ask
13 yourself how much of that transaction cost would have already been paid in a normal
14 competitive environment. I'm not making, I think, a deep point, I'm just simply saying that
15 the fact that there are transactions' costs, you have to (a) think about the scale of them; and
16 (b) condition them on the nature of an incumbent in a market of this sort. I'm saying
17 nothing more than that.

18 Q Let us move on. You say in para.23, as you mentioned a moment ago:
19 "... because of the increased risk of failure as meters get older ..."
20 – your words –
21 "... older meters are less valuable than younger meters."
22 – yes? A. Yes.

23 Q You say that National Grid would normally seek to ensure it is more attractive for a gas
24 supplier to remove the low value assets rather than National Grid's more valuable assets –
25 yes? A. Yes.

26 Q That is essentially your opinion about how National Grid rationally and legitimately should
27 be seeking to go about the estate management of its asset base? A. Yes – from the
28 National Grid perspective, yes.

29 Q From the National Grid perspective. Have you undertaken any investigation of the
30 relationship between age and reliability of domestic size gas meters? A. I talked a little
31 to people initially and I have since seen Mr. Way's discussions on this. It's one of the areas
32 where I know a lot more now than I knew when I wrote the report.

33 Q Did you think it relevant before writing that report to take into account such issues – for
34 example, to put what National Grid actually had been doing in the past and still does by way

1 of clearing out its least valuable metering assets? A. My understanding at the time that I
2 wrote the report was that how this operated was that there are policy meters, which are
3 defined, I think, by Grid as meters where more than 30 per cent misread by more than 2 per
4 cent – is my understanding, I may be wrong. Those are clearly low valued assets. They go
5 on the policy list and in my suggestion these would be replaced with no PRC, and my
6 understanding in the MSAs is that these are expected to form part of the glide path and be
7 replaced. So those assets would be replaced in the manner that I’ve described. The
8 question then is what remains of the remaining stock. I think – I can’t quite remember the
9 words you’ve just used, but it’s cropped up a great deal in this discussion as if things aren’t
10 on the policy list they are usually described as perfectly well functioning assets. My
11 understanding of meters, and I’ve not actually seen anything in the whole of the case that’s
12 changed that view, is they aren’t like light bulbs, you don’t have something that works
13 perfectly well like a light bulb and then suddenly fails and you replace it. These assets, we
14 can talk about the way that their quality depreciates over age. But what seems to be
15 unambiguous in all the evidence that I have seen is that the perfectly good assets actually
16 differ in the extent to which they misread. My understanding is it is perfectly possible to
17 have a perfectly well functioning meter that misreads more than a quarter of the times in
18 that particular batch, you could have it at 26, 28 per cent misreading more than 2 per cent
19 and that is described as a perfectly good asset.

20 Q Which it is because it continues to be fit for the purpose for which it is intended? A. Well
21 it is fit for the purpose – this is actually a very interesting point. If I was Mr. Way, I would
22 be saying “This is fit for purpose”. Mr. Way is employed by National Grid to deal with
23 National Grid’s meter stock. He is sitting there protecting National Grid’s property,
24 protecting National Grid’s profits, deciding when to replace meters with other meters that,
25 in the majority of cases, and for many of the clients it is absolutely sure will be replaced by
26 another National Grid meter. So it makes perfect sense for Mr. Way to describe a meter
27 that is misreading more than 2 per cent, or a meter batch that is misreading more than 2 per
28 cent for 28 per cent of the cases where they are sitting, it is perfectly sensible from his
29 calculation to describe that as a perfectly good meter, but it is totally reasonable for a gas
30 supplier to think: “This is not a perfectly good meter, it is not a perfect substitute for a one
31 year old meter. This is telling 28 per cent of my customers and with my gas it is misreading
32 it by more than 2 per cent.” It is a huge – I find this very difficult, this conversation of
33 perfectly good meters has suddenly become a policy meter I find very difficult. What I see
34 is a series of meters that, absent policy meters, and maintenance replacements, this is a

1 stock that, as they get older, for various reasons, the misreading of this stock goes up. You
2 can describe them all as “perfectly good”, or as perfect substitutes for each other, but if I
3 was a gas supplier, I would not see a meter that reads everybody perfectly, as a perfectly
4 good substitute for one that reads 28 per cent more than 2 per cent wrong.

5 Q Professor Grout ---- A. I am no meter expert as you pointed out, but I am just going on
6 the evidence that I have seen in front of me in the Tribunal.

7 Q You say that, Professor Grout, have you seen any evidence to that effect from any gas
8 supplier? A. From a gas supplier, I am sorry?

9 Q You were talking about from the perspective of gas suppliers, how they may not share the
10 same perspective? A. No, I have not seen any evidence. I said it is what advice I would
11 give them if I were talking to them and I would be very surprised if this is something of
12 which they had no interest.

13 Q Secondly, Professor Grout, if one removes these inaccurate policy meters from the totality
14 of the meters under consideration, is it your evidence that there would be, with certainty, a
15 correlation between the age profile of those remaining non-policy meters and their
16 accuracy? Is that your evidence? A. My understanding, at the time of writing this, from
17 the conversations I had had, my understanding is that of the remaining stock, which we
18 described as perfectly good meters, and I am happy to use that terminology, there would be
19 a correlation between the percentages that are reading incorrectly, over 2 per cent, and the
20 age. Now, I am not saying that is a perfect correlation. I am not saying that every time you
21 find a 10 year old meter it reads less accurately than a two year old meter, but there is a
22 correlation between the age and the accuracy or “condition”, if you wish to call it, of those
23 meters, and my understanding of Mr. Way’s evidence, to the extent that I could follow this
24 particular point, he did not disagree with that statement. I have not found anywhere ----

25 Q I will pick up Mr. Way’s evidence. Do you have bundle WS5, Professor Grout? If you
26 turn to tab 20 in WS5, you will find Mr. Way’s witness statement, and if you turn within
27 that to p.2916 you will find para. 8 of his report. You see what he says, he is commenting
28 on your view in para. 8(a):

29 “On the basis of my experience in managing National Grid’s metering assets, I do
30 not agree that older meters are necessarily, or even generally, less valuable or
31 more prone to failure than younger meters. While there is of course some
32 increased risk of mechanical failure as the age of a meter increases, the evidence
33 from in-service testing clearly shows that :

34 - many meters remain accurate for periods well in excess of 20 years; and

1 - Conversely, some young meters require to be replaced because they are
2 examples of a type of meter that has been shown to have accuracy or
3 other operational problems.

4 Now nothing that you have heard from Mr. Way detracts from that proposition?

5 A. Sorry, I was rather loose, when I meant the evidence, it was what I heard from Mr. Way
6 when he was here. I agree entirely with the two internal points: “many meters remain
7 accurate for periods well in excess of 20 years, and conversely some younger meters require
8 to be replaced before or because they are examples of types of meters shown to have
9 accuracy or other operational problems”. But I agree entirely those two points.

10 Q If we then continue with what he says in para.8(b), he says:

11 “b. Meter condition (principally accuracy) and not age is therefore the most
12 efficient way of managing meter replacement. This has been the basis of National
13 Grid’s meter replacement policy since 1997. This policy was based on the
14 allowance made for efficient replacement expenditure on meters by the MMC in
15 1997 and by Ofgem in the 2002 price control review.”

16 Now, you are not saying that the MMC and Ofgem have that wrong, or that there is
17 something inefficient about a meter replacement programme which is based on condition
18 principally, accuracy rather than age? A. Right, let me think about this for one second,
19 there is more than one question at that point. Let me put the point this way. Mr. Way is
20 dealing with a different question from the question that I deal with in my evidence. As I
21 said earlier, Mr. Way is dealing with the National Grid meter stock. He is asking the
22 question: when is it appropriate to change meters with regard to National Grid’s profit, and
23 with regard to their functionality. The question I was dealing with is the question of what
24 contracts would exist between a gas supplier and National Grid. There are things that enter
25 the calculus that determine that contract that Mr. Way does not need to deal with when he
26 answers the question in terms of replacement of National Grid’s meters. I would also say
27 that this is not an issue of age related versus condition. My suggestion, or belief as to what
28 would happen in normal competition would be that you would get condition as being one of
29 the very big drivers. There is no doubt in my evidence, I hope, that I have made it very
30 clear that failing meters and policy meters would be replaced without a PRC. I have not
31 defined policy meters at the abstract level that I was dealing in my evidence and, indeed, my
32 understanding of at least part of what Mr. Way was saying when he was here, was that they
33 have changed the way that they deal with policy meters, but that is fine and totally
34 consistent with my evidence. My evidence is then purely one of, “What do I think would

1 emerge in terms of contracts between a gas supplier and National Grid for the other meters
2 which everyone is describing -- a large number of people are describing as perfectly well-
3 functioning meters, but meters which undoubtedly have different capabilities of reading
4 capacity?" So, although they may be described as perfectly well-functioning, they are not
5 all the same. I am actually saying what I believe would happen in a contract with regard to
6 those meters. That is the age-related element.

7 Q Professor Grout, you say that Mr. Way's evidence deals with something different from what
8 your evidence is dealing with. If we return to para. 23 of your report ---- A. Sorry.
9 Could I correct that? I was actually describing the position Mr. Way is in - just to correct
10 that. Sorry.

11 Q You say in para 23 of your report that from National Grid's perspective, National Grid
12 would seek to ensure that the low value assets are taken out before the more valuable assets
13 and you draw a correlation between the low value assets and the older ones, and the higher
14 value assets and the younger ones. Yes? A. A correlation. They are not the same thing. I
15 have suggested that a contract would undoubtedly be condition-based. It's age-related.
16 Some of the stock would have an age element in terms of the contract. But, the condition
17 would also be a central part of this contract. I am not disputing for one second that the
18 contracts that I have suggested that would arise would not have a large element of condition
19 in terms of the PRC. The PRC will be conditioned on the condition of the meters in a large
20 number of cases. The question really is what happens in terms of the contract to the
21 remaining so-described perfectly well-functioning meters that clearly are not all the same?

22 THE CHAIRMAN: But you do still maintain that with the remaining non-policy meters, that they
23 are more likely to be inaccurate the older they are? A. Yes. Yes.

24 Q I think what you are being pressed on is, "Where do you get that idea from?"

25 MR. TURNER: How do you know that there is a correlation once you take away the policy
26 meters between the remaining meter stock and accuracy of any strong kind? A. Okay.
27 So, my initial evidence was based on two things: (1) one's general intuition that the life of
28 these meters is clocking down as they get older in expectational terms. When I looked at
29 the age distribution of the meters in the Legacy stock, nothing in that situation changed my
30 view. (2) It was also based on just asking people -- I didn't ask Ofgem to produce a
31 document for me, but I just talked loosely to one or two people in Ofgem, and asked them a
32 few questions. So, it is based on that. I have now seen Mr. Way's report and heard Mr.
33 Way's evidence. My contracts, as I've described them in my evidence, don't specifically
34 define a policy meter necessarily in the way that they are. One can define it in lots of ways

1 without upsetting my general thesis. But, looking at Mr. Way's evidence, I find it very
2 difficult to look at the figures that he has derived and not see that the old meters perform
3 less well than younger meters. Now, there are two reasons for this, I suspect, although I am
4 not a meter expert. One is that as any individual meter gets older it starts moving more
5 towards the end of its economic life, although that period will depend on different meters.
6 Secondly, with the Legacy stock, the different ages of the meters will have actually been put
7 in place at different points. So, younger meters will be supplied by, hopefully, better
8 suppliers, or at least better meters from suppliers than some of the older meters in the
9 Legacy stock. I have not seen anything in Mr. Way's evidence that he presented here to
10 change that fact. If you look at the figures ----

11 Q Professor Grout, I am sorry to interrupt, but we do have to get on. If we turn to Mr. Way's
12 statement and you look at para. 17 -- This is part of his statement on p.2920, which you say
13 you have read but that nothing in it changes your view. WS5, Tab 20, p.2920 at para. 17.
14 Now, what he says there is that,

15 "Much of the replacement work that has been necessary over the last decade has
16 been to remove certain types of relatively young meters that proved unreliable not
17 long after installation".

18 He then refers to that. Now, do you have a basis for saying that once you take out those that
19 are sufficiently unreliable to be classified as policy meters that in the remaining stock there
20 is a good enough correlation between age and accuracy to enable you to say that the older
21 meters are going to be less valuable than the younger meters? A. Taking Mr. Way's
22 figures on p.8 ----

23 Q I am asking you to address that proposition that I put to you arising from para. 17 ----

24 THE CHAIRMAN: I think he is addressing that - or was about to. A. I just do not dispute that
25 when one puts a meter in place, every meter is not going to last for twenty years and fall to
26 pieces on twenty years and one day. Some meters will be put in place and have to be
27 moved earlier. Some meters will stay longer. I have never disputed that fact. The question
28 is, appropriately defined, and my evidence doesn't necessarily say anything about what
29 constitutes a policy meter, although clearly at the back of my mind was the idea that there is
30 a concept ... that National Grid have. But, my evidence is fairly generic, and therefore I'm
31 just talking about meters that will be considered to be an unacceptable level.
32 Taking those away, if one looks at Mr. Way's evidence on p.8, then as I read that evidence -
33 - This, I understand, is a cross-section of the age of meters, looking back -- I'm not quite
34 sure when this evidence was collected.

1 MR. TURNER: This is for one particular kind of meter, as he describes in para. 18.

2 THE CHAIRMAN: If you read para. 18 it might help us move on. (Pause whilst read): So, am I
3 right in thinking that in Figure 1 on p.8, where it says ‘Actaris (previously Schlumberger
4 and Parkinson Cowan) meters’ that is not three different kinds of meter - it is the same
5 meter which has been called different things over the years.

6 MR. TURNER: Yes.

7 THE CHAIRMAN: So, the point that is being made is that that is a profile of one of the meters.
8 A. Yes. I understand that.

9 MR. TURNER: Albeit important, which we accept.

10 THE CHAIRMAN: 60 percent of the meter population is now that meter. A. Yes. Okay. That
11 was my interpretation as well. My understanding of it is that this is all conditioned on a
12 particular type of meter, which could be misrepresentative of the stock. I am assuming that
13 the evidence was not misrepresentative, and so this is just a type of meter. We look at the
14 cross-section of this meter. By the way, as you said, this does represent the majority of
15 meters as well, as I understand it. This evidence, to me -- Most of the meters, I was
16 looking last night -- It looks like most of the meters - which on this evidence are more than
17 ten years old - are misreading ten to fifteen times more customers than meters that are
18 relatively new. Now, Mr. Way, on p.18, says that this demonstrates that these meters
19 continue to perform well. Now, if you describe any meter that has got less than 30 percent
20 of these customers reading outside 20 percent, and you treat all these meters as if they are
21 all equally good, then that may be the case then because by definition you take the policy
22 meters out, you are left with the stock you call perfectly good, and in some sense there
23 cannot be any age-related element because you describe them that they are all the same. I
24 am looking at this and seeing meters that misread more as they get older.

25 MR. TURNER: Professor Grout, let us assume ---- A. So, I think it may be that Mr. Way --
26 Nobody asked Mr. Way this particular question, but it may be that in a sense one could
27 square out pieces of evidence by that particular route, but I struggle to look at that picture
28 and see how you cannot describe these meters that are misreading ten to fifteen times more
29 customers than brand new meters as, you know, the same condition. That is all I am saying.

30 Q That is all you are saying, Professor Grout, but if we draw a horizontal line at the 30 per
31 cent mark on the white axis, we see that all of those meters fall considerably below the 30
32 per cent line which is National Grid’s cut-off point for defining policy replacements. You
33 would agree with that? A. I agree entirely.

1 Q You would agree also that you do not know that gas suppliers do regard meters falling into
2 the category of reading slightly more inaccurately on average as being, from their
3 perspective, less valuable.

4 MISS CARSS-FRISK: Madam, how can Professor Grout comment on that?

5 MR. TURNER: I am asking him whether he has any basis for saying that? A. If you'd allow
6 me, could I cut through this. I'm sorry, I'm in your hands, madam.

7 THE CHAIRMAN: You can try, Professor Grout, yes. If I were sitting with a gas supplier and
8 National Grid, for perfectly good reasons – consider a meter from National Grid's
9 perspective and their profits, consider a meter that misreads 28 per cent of customers more
10 than 2 per cent inaccurately, I would be saying to the gas supplier, "This is not as good as a
11 brand new meter". I asked the question as a result of this information – I've actually asked
12 the question – what is the average residential expenditure on gas? The answer is that it is
13 about £1,000. So of these 28 per cent, a large number might well be reading more than 5
14 per cent inaccurately. So this customer, their bill is more inaccurate in any one year than it
15 would actually cost to put a brand new meter in place which is virtually reading completely
16 accurately according to this information.

17 MR. TURNER: Professor Grout, where are these ---- A. I just struggle to see such a meter as –
18 sorry?

19 Q Where are these meters that read 28 per cent inaccurately as opposed to the 30 per cent?

20 A. Okay, sorry, I can answer that in two-fold. One is I was talking hypothetically as to
21 what I would say to a gas supplier. The other feature is if there is a batch of meters that get
22 beyond 30 per cent then they have to get there somehow. Either they were above 30 per
23 cent all their time, or more likely they had some particular aspect that was less impressive
24 and therefore they moved much more rapidly from the well reading to the lower reading,
25 lower quality, more quickly than other meters. So, therefore, if there was any element of
26 this number going up, and this evidence suggests there is that, then somehow these meters
27 would have to get through the 28 per cent to get to above the 30 per cent to get into the
28 policy box.

29 Q Professor Grout, thank you for that. A. And I'm not a meter expert, as you keep telling
30 me. I'm just dealing with the economics to the problem.

31 Q No, of course you are not. For the purposes of moving forward, let us leave it that if we can
32 agree on this, as well as considerations of the age of the stock from National Grid's point of
33 view, which you are addressing in your para.23, that there are other factors which might
34 legitimately need to be taken into account in assessing the structure of PRCs? A. Yes.

1 Q Even if it were right that the Legacy MSAs were not entirely optimal, were sub-optimal,
2 from National Grid's perspective, which you address in para.23, that would not mean that it
3 was foreclosing of competition to arrange your cancellation charges in a different way,
4 would it? The mere fact that from National Grid's point of view the structure was sub-
5 optimal from the point of view of estate management of its meter stock ---- A. I am sorry
6 to slow things down. Could you repeat the question, because I was partly ----

7 Q In para.23 you refer to what you would expect to see from National Grid's point of view, if
8 National Grid is seeking to ensure the good husbandry of its assets – yes? A. In normal
9 competition?

10 Q In normal competition, and my question to you is, even if you see a structure of charges that
11 departs from what you would expect National Grid to be pursuing as part of its self-
12 interests, that would not, in itself, mean that there was foreclosure of competition, would it?
13 A. No.

14 Q It would mean that the deal was not as good as it might be from National Grid's perspective,
15 because the husbandry of its assets is not as good as it might have been? A. That's only
16 one ----

17 Q Yes, it is, that is National Grid's perspective. A. It may be that there is another
18 contractual form that I agree does not lead to the same husbandry of National Grid's assets,
19 but may actually lead National Grid to have more profits. That's perfectly feasible.

20 Q Yes, and when we are talking about foreclosure of competition, the fact that from National
21 Grid's point of view there is departure from what you would expect to see tells us nothing
22 about that aspect? A. It's a bit strong to say tells us nothing, but I agree it does not
23 suggest that there's foreclosure, which is, I think, the point you want me to make.

24 Q Because we would like to focus for that purpose, or need to focus for that purpose on the
25 effect of the agreement on the incentives of gas suppliers and the CMOs whom they
26 engage? A. Yes.

27 Q As regards the gas supplier incentives, we have already seen that British Gas preferred,
28 from the evidence we saw earlier, a flat rate PRC system coupled with a glide path over an
29 age based PRC structure for reasons of simplicity and ease of operation. Those were the
30 paragraphs we went to in Mr. Avery's evidence. A. Yes.

31 Q At para.25 of your report you focus on the perspective of gas suppliers, and you say:
32 "Age related termination charges also have attractions for gas suppliers. They
33 allow them to benefit for competition through the appointment of CMOs."

34 That is your evidence? A. Yes.

1 Q If we pick up the notice of appeal again in CB1, tab 2, and go to p.248 of the bundle
2 numbering. It sits under a large table entitled “Estimates of the shares of the number of N/R
3 Meters fitted in Great Britain (2005-2007)”. A. Yes.

4 Q Before you wrote your para.25 and said that the age related termination charges allow gas
5 suppliers to benefit from competition threat the appointment of CMOs, had you picked up
6 from this that, notwithstanding the absence of age based PRCs under the Legacy agreement,
7 there are a number of CMOs who are already substantial competitor for new and
8 replacement meter installation work? Had you seen this? A. I was fully aware that there
9 are competitors. The word “substantial”, providing “substantial” competition ----

10 THE CHAIRMAN: Were you aware of the extent to which, to put it more neutrally, they were
11 providing ---- A. Yes, exactly, that was clearly one of the pieces of information I was
12 aware of.

13 MR. TURNER: Do you remember also seeing in the notice of appeal that the gas suppliers had
14 specifically taken into account whether the Legacy deals would impair their freedom to
15 appoint CMOs, and that their conclusion was that the agreements would not do that – had
16 you seen that? A. I can’t recall that, but I’m willing to accept it if that’s the evidence.

17 Q If we go to p.146 we can see it. I am now talking about the internal numbering. You will
18 need to go to p.296 in the bundle numbering.

19 MISS CARSS-FRISK: Madam, I do apologise for jumping up, but it is very difficult to ask this
20 expert witness to comment on factual assertions contained in the notice of appeal.

21 THE CHAIRMAN: He did accept, I think, when you just put it to him, that the gas suppliers did
22 take into account when they were deciding whether to sign the Legacy MSA that it would
23 allow them enough leeway to appoint CMOs.

24 MISS CARSS-FRISK: I think he said if that was the evidence.

25 MR. TURNER: Well, madam, that is right. Professor Grout says that before preparing his report
26 he took into account the notice of appeal. He has given an opinion that age related
27 termination charges have the advantage that they allow gas suppliers to benefit from
28 competitions through the appointment of CMOs. What I am doing is showing him these
29 parts of the notice of appeal and asking him to clarify the extent to which he took those into
30 account before preparing his opinion. It is perfectly unexceptionable. I am happy for him
31 not to look at it, but it may however mean that there is confusion later on. If we can take it
32 that he has accepted that proposition then that is fine? A. My understanding, and you can
33 correct me if this is incorrect, I think British Gas are the only ones that have appointed a
34 CMO?

1 Q In practice that is correct? A. Yes, sorry. I have no dispute with what you are presenting
2 in front of me,

3 Q My question is only that he had made a proposition in his report and this is the evidence
4 which Professor Grout will have seen before he wrote it?

5 PROFESSOR STONEMAN: I understood the CMOs were appointed before the MSAs were
6 signed in January 2004, so how can you use information that there were CMOs before the
7 contract was signed as a way of showing whether or not 25 is right or wrong?

8 MR. TURNER: I can explain that. First of all, these paragraphs, if you have them here, and it
9 goes to what Professor Grout was saying, so I am very grateful for the interjection, are not
10 referring to British Gas. We are now talking about the other gas suppliers who signed these
11 MSAs, they did not have CMOs at that time, and what you see – if I may I will simply just
12 show the witness and the Tribunal – these other gas suppliers are saying to themselves: “If
13 we engage in this deal, is it going to harm our ability to appoint CMOs?” That is the main
14 point, but what you see is consistently that the other gas suppliers are saying that that is not
15 the case. If you focus on one of them, it you look, for example, at Powergen at para. 421 of
16 the notice of appeal, some of that is in yellow, but the quotation is not, and you have seen
17 the document before; and para. 423 is NPower, thinking about it from its point of view, and
18 424 is Scottish Power.

19 THE CHAIRMAN: I do not think Professor Grout can help us with any of that. Is your point
20 this, because I am not quite sure I understand it, that in para. 25 of his report the implication
21 might be that without age related termination charges gas suppliers would not be able to
22 benefit from competition through the appointment of CMOs. What you are saying is that
23 they clearly thought that they could benefit from that under the legacy MSAs.

24 MR. TURNER: And that before Professor Grout wrote his opinion in para. 25 had he seen these
25 pieces of material which he refers to?

26 THE CHAIRMAN: Can you answer that question, Professor Grout? A. The one thing I would
27 say is that these large documents I have not read through as thoroughly as the witness
28 statements on which I am based. My interpretation – let me actually look at, sorry, I have
29 so many of these things in front of me at the moment – in terms of it is the benefit of
30 competition through the appointment of CMOs, it is not literally just “Ah, there is a CMO in
31 the market, therefore everything is fine”, it is the extent to which the competition would
32 arise which I think is a slightly subtle difference.

33 MR. TURNER: Yes, now under the Legacy MSAs, which have the flat rate structure, as you
34 know, for cancellation charge declining progressively each year to zero, a gas supplier has

1 complete freedom to target meters for replacement in line with its business preferences,
2 would you agree? A. That was not my understanding. My understanding was that most
3 of the meters that had to be taken out actually had to come from restricted pools. I may be
4 incorrect but my understanding is that you had to take out certain policy meters, if these
5 were not taken out then National Grid had the right to take them out and they counted
6 towards your glidepath, maintenance meters went in, functionality changes – in essence
7 any change that National Grid might have had to make anyway was pushed on to the gas
8 supplier as part of their allowed return, and my understanding is that the difference between
9 these two – depending on how big the policy pot is and how it is defined, and various other
10 things – was loosely at some point, I have seen figures of around about one per cent. So I
11 would take slight issue with your description of the situation, but as with Dr. Williams, I am
12 not an expert in either of these contracts and have not read them.

13 Q Professor Grout, in what you just said a moment ago, you referred to at first a restrictive
14 pool and then you qualified that by saying that, depending on how wide the pool is, as to the
15 level of constraint that would be exercised? A. Yes.

16 Q Can we take it as a working assumption that there is not a case being put that the policy
17 pool is restrictive in terms of the meters specified to be replaced?

18 THE CHAIRMAN: You are talking about two different points here, let us try not to get them
19 confused. We are talking about the extent to which the allowance under the glidepath is
20 larger than the policy meter replacement in every year, which we have generally seen a
21 figure of 130,000 as being the part of the free replacements under the glidepath, which are
22 not taken up by policy meters. So that is the one area of flexibility. Then I think what you
23 are talking about is the 1.3 times the number of meters that have to be replaced in the policy
24 pool, which gives the gas supplier the flexibility to choose which, from the policy pool, it is
25 going to replace in order to fulfil its policy requirements. Now, those are two very separate
26 things, can you just clarify which one of those you are now asking him about?

27 MR. TURNER: Madam, one slight qualification to what you were saying, there is also the CREs
28 (The Customer Requested Exchanges) which go into what Ofgem are describing as the non-
29 discretionary side of this.

30 THE CHAIRMAN: So the 130,000 is ----

31 MR. TURNER: Net of that ----

32 THE CHAIRMAN: Net of that as well as ----

33 MR. TURNER: Net of that as well, yes. The point that I am putting to Professor Grout is at least
34 up to the level of this free glidepath allowance the gas suppliers have the possibility to

1 replace whatever meters they like in accordance with their business preferences charge free?

2 A. My understanding is that there are yet further restrictions. I am fairly certain – I have
3 not read the contracts, but everybody tells me, and it is in my evidence – that if you replace
4 meters that are less than four years old you incur further costs and therefore I think even of
5 those meters the gas suppliers have certain further restrictions on them. Have I
6 misunderstood?

7 Q I, myself, am not entirely aware of what you are talking about there, Professor Grout?

8 A. Sorry, well I thought there were a certain number of meters, putting aside the others, the
9 gas suppliers are completely free to replace whatever meters they wish of whatever
10 percentage it is ----

11 Q Up to the level of the glidepath allowance ---- A. – and my point is ----

12 Q -- there is a charge free possibility of replacing ---- A. My understanding is that that is
13 not completely true, because if you take out too many young meters you still pay. Now, I
14 may be wrong, but my understanding is that it is free providing you take the right meters
15 out. You are saying it is free they can take out what they want. My understanding is that if
16 you take out of those too many meters that are less than four years old it is not free, you
17 face further charges, the gas supplier faces further charges. Now, I may be incorrect on
18 that.

19 Q I am going to leave that to one side, Professor Grout, because that is a contingent situation
20 which does not arise in the usual course of operation of these agreements. If we can leave
21 that to one side ---- A. That's an equilibrium. It doesn't arise because you have to pay if
22 you do it. That's why. So, I don't think you can leave it to one side.

23 THE CHAIRMAN: As I understand it, there is some provision which says in the contract that if a
24 disproportionate number of younger meters is taken out, then the PRC may be higher than it
25 otherwise would be. But, that additional condition has not so far played a major part in this
26 case because my understanding was that it was not taken into account in Mr. Keyworth's
27 calculations and it does not form a major part of Ofgem's complaints about this contract.
28 But, where we are struggling at the moment is, I think, that of the free replacements under
29 the glidepath, which about 980,000 a year, you are being asked what restrictions there are
30 on the gas supplier as to choosing which out of the gas meters it has, which 980,000 it is
31 going to replace. I think your answer, going back several answers was, "Well, insofar as
32 some of those have to be policy requirements, then they are not entirely free to choose any
33 gas meter they want. They have to choose from the policy replacement pool". I think that is
34 where we have got to, Mr. Turner.

1 MR. TURNER: If that is Professor Grout's proposition and he is happy to agree to that ---- A.
2 But there is also, as far as I understand it, this issue about the younger meters which I realise
3 is not in the case, but somebody who is being accused that age-related PRCs would not be
4 something you would observe in normal competition - or at least they would not be the
5 focal and the main direction - clearly I accept that I may be more sensitive to this condition
6 of restrictions on younger meters than other people in the room.

7 Q In terms of the normal operation of the glidepath allowance, Professor Grout, did you see in
8 the Notice of Appeal the point that when you are looking at the point of view of gas
9 suppliers and CMOs, the priority work is what has been called the customer-driven work,
10 such as swaps of prepayment meters for credit meters, and vice versa? Did you see that?
11 A. Yes. Yes.

12 Q Perhaps if you pick up CB1 I can ask you a further question about that, and look in the
13 Notice of Appeal at p.180. Look at paras. 36 and 37. You have there, in the Notice of
14 Appeal, something that came from the first statement of objections by Ofgem,
15 "The customer driven work is the priority, although the agreed volume of policy
16 exchange work just also be completed that year --"
17 - and that the common approach to the organisation of meter installation/replacement work
18 will be on that basis. So, that was in the Notice of Appeal. Were you aware, when you gave
19 your opinion that age-related cancellation charges have attractions for gas supplies in para.
20 25 of your report that British Gas had particularly requested charge-free customer requested
21 exchanges during the early negotiations over the MSAs and that such exchanges would
22 inevitably involve young meters as well as old ones? A. Yes.

23 Q Why was that not reflected for completeness in your opinion in para. 25, dealing with the
24 attractions for gas suppliers of one system of charges over another? A. I'm sorry. I
25 thought I'd dealt with this issue. Could I look for a moment in my evidence?

26 Q Yes. A. (After a pause): I am sorry about this. I am not as familiar with it as I
27 should be. I had a section that dealt with functionality changes, and said that functionality
28 changes were, if I recall, a half-way house.

29 Q That is right, Professor Grout, but the point I am putting to you is a bit different from that,
30 which is that in para. 25 of your report, in discussing what is a normal structure of charges
31 that you would expect to see, you refer to the perspective of the gas suppliers. A. Yes.

32 Q You set out one consideration there. I am putting to you that there were other considerations
33 in the material you said you reviewed before preparing your report which are not reflected
34 here. That is one of them. A. They're not reflected in that paragraph, but I did discuss

1 the issue as to whether functionality changes would face a PRC or not because they're a
2 half-way house between failing meters (which would have no PRC) and the fact that the
3 customer or the gas supplier may be driving this and National Grid may then be saying,
4 "Well, we think that this should have a PRC attached to it".

5 Q Do you consider that this is a consideration that a gas supplier such as British Gas can
6 legitimately take into account when deciding which structure of PRC charges would best
7 suit its business operations, or not? A. Yes.

8 Q Had you also noticed in the Notice of Appeal the point that British Gas, which has, in
9 practice, tried to follow a system of age-based replacement of meters, would have incurred
10 much higher PRCs under an age-related approach than under the Legacy MSA approach,
11 which was in fact adopted? Did you see that? A. I recall that. I haven't seen the exact --
12 I can't bring the exact thing to mind, but I am aware of that.

13 MISS CARSS-FRISK: I wonder if there is going to be a question based on the Notice of Appeal
14 and whether Professor Grout can be referred to the particular passage?

15 MR. TURNER: If we turn to p.338 in the Notice of Appeal -- My friend jumps up a little bit too
16 frequently, because we were going to that. (After a pause): We see this, "Indeed, the
17 financial implications of Ofgem's age-related counterfactual are profound. Focussing on
18 what has actually happened in reality, National Grid has examined the PRCs that British
19 Gas would have had to pay under Ofgem's age-related approach given its actual meter
20 replacements from 1005 - 2007 [which have been on an age-related basis]. The figure is
21 over £50 million. ... When it is recalled that British Gas accounts for only around half of
22 the Legacy meter population, it will be recognised that Ofgem's age-related counterfactual
23 would have been financially disastrous for gas suppliers. Moreover, these are the costs that
24 would have applied before an extensive premature replacement programme of the type that
25 Ofgem envisages in its scenarios".

26 So, that was the part of the Notice of Appeal which made the point that for a major gas
27 supplier which had sought to follow an age-based approach to replacement, had there been
28 age-based system of PRCs in operation, it would have incurred vastly higher costs. Did you
29 see that? A. I did see that. My view of this - and you would have to speak to the experts
30 (although one has gone already) who have been dealing with the more detailed modelling.
31 Essentially what we're observing here is a company that is operating under the MSAs. I
32 appreciate what you're telling me - that within that they try to follow an age-based
33 replacement policy. I have no objection to that. But, that is not the same thing as replacing
34 under an age-based PRC. So, I'm not in a position to infer -- What you are telling me is that

1 with a set of MSAs in position a company followed a particular strategy, which I assume - I
2 have no reason not to assume - was not the sensible thing to do, given the MSAs in position.

3 Q What I am saying to you, Professor Grout, is that if they had followed an age-based policy
4 of the kind that Ofgem says would be followed under a system of age-based PRCs, then the
5 costs which would have arisen with age-based termination charges would have been vastly
6 greater for the gas supplier. A. I agree, and the point I am making is that I don't know
7 the details of how British Gas followed their age-based policy. What I do know is that you
8 are looking at what they did with an MSA in place. What you would need to compare that
9 with is what they would have done had an age-related PRC been in place. So, you are quite
10 right that had they done exactly what they did under the MSAs with an age-related PRC,
11 I'm perfectly accepting that that would've cost them more money. But, I am then saying
12 that that isn't the relative comparison. You have to look at what they did under the MSAs.
13 Imagine an age-based PRC was in position instead. Ask what they would have done in that
14 situation and compared the two.

15 Q Is it your evidence that with an age based system of PRCs the policy that would have been
16 adopted would have been different from an age based system of replacement? A. No,
17 because I'm neither - you're talking about British Gas's attempt to do an age based
18 replacement policy. I'm sorry, that's way out of my area of expertise. I have no idea how
19 that relates to what you would have done had you replaced them with an age based PRC. I
20 just can't answer that question. You're taking me way out of the area that I - I'm here as an
21 academic economist trying to throw some light on this problem, and I can't think my way
22 through these detailed British Gas type things. It's not my expertise at all, I'm afraid.

23 MR. TURNER: Madam Chairman, I notice the time. I do have some further distance to go after
24 the short adjournment, and then we have Mr. Keyworth. Over the short adjournment I am
25 going to attempt to get this cut down to the maximum possible extent, but I cannot be
26 confident that we can finish by the four o'clock deadline that you indicated would be ----

27 THE CHAIRMAN: What, that you can finish with this witness or ----

28 MR. TURNER: Altogether.

29 THE CHAIRMAN: -- that you can finish with Mr. Keyworth as well.

30 MR. TURNER: No, I will certainly finish with - it is not entirely in my hands. A. Can I have
31 that on paper, please!

32 MR. TURNER: I ought to be able to finish, certainly well before four o'clock, with this witness.
33 The subsequent witness, he may take longer and we may go over the four o'clock.

1 THE CHAIRMAN: I think we will take stock at four o'clock then and see how much more you
2 have to go. If we are, in any event, going to go over until tomorrow with Mr. Keyworth,
3 then we will have to consider where that leaves us with the timetable more generally. If it is
4 only a few more minutes to go with Mr. Keyworth then we might continue.

5 MR. TURNER: I am going to endeavour to move things along as rapidly as I can, madam.

6 THE CHAIRMAN: We will resume at five minutes past two.

7 (Adjourned for a short time)

8 THE CHAIRMAN: Miss Carss-Frisk?

9 MISS CARSS-FRISK: Madam, yes, if I may just raise a timetabling issue, we understood that on
10 Friday the Tribunal really ruled that we have to finish on Wednesday, and on that basis
11 obviously we would go into closing tomorrow. Mr. Turner and I had agreed that on that
12 basis Ofgem would kick off with closing submissions tomorrow morning followed by the
13 interveners and then for National Grid to have Wednesday to finish.

14 THE CHAIRMAN: Yes.

15 MISS CARSS-FRISK: The difficulty that seems to have emerged is that, as I understand it,
16 National Grid are now saying that actually, they are unlikely to finish cross-examining our
17 witnesses until about lunchtime tomorrow, and that obviously does raise some real
18 concerns, for our part, certainly that it would be very, very difficult to go straight into
19 closing at that point. It may be on that basis that one solution would be to say we are going
20 to sit on Thursday and start closing on Wednesday, and then do Wednesday and Thursday,
21 but I am rather concerned at the prospect of possibly having to go straight into closing for
22 Ofgem with our expert evidence only having been finished about lunch time and then
23 starting at two. I just wanted to raise that, the other option being that we somehow finish
24 the evidence today, but that does sound difficult.

25 THE CHAIRMAN: Yes.

26 MR. TURNER: Madam, I fully understand my friend's concern. I would say that at the moment
27 I think it is unlikely that we are going to go all the way until lunchtime tomorrow with these
28 experts. I think it is most likely that there will be a bit of tomorrow taken up with finishing
29 Mr. Keyworth. At the same time, I fully understand what Miss Carss-Frisk says. Based on
30 that, because I see the need for some kind of breather when you are in our position, it would
31 either be a breather until the afternoon, if we manage to get the witnesses done quite
32 quickly, or, as Miss Carss-Frisk says, whoever is dealing with it starting on the Wednesday.

1 THE CHAIRMAN: Yes. We had had a similar over the short adjournment, but let us see where
2 we get to this afternoon before we finally decide, but I hear what you say and we will
3 certainly take that into account.

4 MR. TURNER: We are both obliged. (To the witness) Professor Grout, before lunch we were
5 looking at the part of your evidence relating to age related cancellation charges, what one
6 would expect to see in normal competition and the reasons that you give in paras.22 and
7 following to support that view. We had looked at the position of National Grid, as you
8 recall, and we were dealing with the position of the gas suppliers just before lunch. Now I
9 want to turn, finally, to the perspective of the CMOs, and ask ourselves whether the CMOs
10 engaged by the gas suppliers would prefer a system of age related charges or what matters
11 to them in terms of operational efficiency and cost minimisation. For that purpose, if you
12 have got the notice of appeal with you in bundle CB1, could you turn up tab 2 and look at
13 pp.179 and 180, what you will see there on the right hand page is a title, "The practical
14 requirements of economic meter installation/replacement". Do you see that? A. Yes,
15 indeed.

16 Q Is this something that you have read, and read before you prepared your report? A. Yes, I
17 did look at it, yes.

18 Q Could you just cast your eye over those paragraphs, 32 to 35, which cover the topics of
19 scale and density of operation, and then the importance of access rates. You will see that
20 those deal with the importance of scale and density of operations and with difficulties of
21 getting access to certain households. You will see at para.34 something taken from
22 Ofgem's first statement of objection about the difficulties with aging meters to which
23 National Grid has, itself, been unable to gain access over the years – yes? A. Yes.

24 Q So here again we see, do we not, an attraction of the Legacy MSA approach in that it allows
25 clustering of charge free meter work to minimise operational costs? A. It certainly helps,
26 although my understanding is that there has been quite a discussion about density and it is a
27 little unclear how important this issue is, but yes, you are right, I accept that.

28 Q If you look back a little bit at paras. 28 to 31 on p.178, 28 beginning: "In other words, there
29 are very few areas of the country where one finds high densities of old meters", and then
30 continuing down, we see, do we not, that if that is right – if that is right – there is
31 correspondingly an economic disadvantage both for the gas suppliers and their CMOs of an
32 age based approach for the legacy meters, and that is because the old meters can be both
33 hard to access and they are not conveniently clustered together? A. My understanding
34 here is that although the meters are not in areas altogether exactly as you described it, I have

1 been party to some discussions concerning this and the extent to which this and access is a
2 major problem I am not sure. I am fully aware and fully accept that indeed access is a
3 significant problem I think in this market, which of course actually goes back to an earlier
4 point I made that even the quality of the existing meters may not be the relative thing when
5 you are thinking about replacement; one may have to look forward because you may not be
6 able to replace meters just immediately when you feel like it.

7 Q Yes, but so far as we are concerned here, as a matter of general principle, focusing on this
8 as an academic economist, if these features are present in the market, they would raise the
9 costs to CMOs if they had to try to target the older meters which were not conveniently
10 located? A. My understanding is yes, I also understand, but I am not an expert, this is not
11 a major cost element.

12 Q And to the extent that it is a significant cost element, leave aside quantification, it would
13 also raise the costs, one would expect, to gas suppliers of competitive metering, because
14 those increased costs of operation for their CMOs can be expected to be reflected in the
15 prices they charge for carrying out their work? A. So if it is a significant problem, I can
16 see there may be an issue with an age related PRC relative to the MSAs for the small
17 amount of business that is discretionary.

18 Q Would it not also apply to all of the business, discretionary or otherwise, in the sense that
19 what you care about is being able to replace meters when you are carrying out your meter
20 work replacements in a conveniently clustered geographical location? A. Yes, that is
21 true, but my understanding, if this was a major problem, or is a major problem – which I am
22 not an expert on – my understanding is that because of the restrictions in the MSA this
23 would to some extent appear there as well, but I take your point that if it is a significant
24 problem then it may impact on the costs, yes.

25 Q Did you see, moving on now, as part of Ofgem's Decision, the idea that it is reasonable
26 and possibly important for the development of domestic metering competition that gas
27 suppliers should be able to make volume guarantees to their CMOs, do you remember that
28 as part of Ofgem's Decision? A. Yes I do remember that, yes.

29 Q Let us look at that, it is in CB1 still at para. 4.146 at the foot of p.101 – that is the bundle
30 numbering, not the internal numbering. If you look at the bottom, 4.146:

31 “The Authority considers it entirely reasonable (and there are good reasons to
32 suspect important for the development of domestic metering competition) that gas
33 suppliers make volume guarantees to CMOs.”

1 Pausing there, is that something you would be prepared to agree with Ofgem on? A. Yes,
2 I can see it is reasonable.

3 Q Because CMOs are likely to find volumes of work which fluctuate significantly from one
4 year to the next to be unattractive? A. I can see that may be an issue for them, yes.

5 Q Would that be because they would need to scale up and then scale down their operations
6 from time to time, or possibly on a periodic basis which would increase their costs and
7 risks? A. That would be one of the factors, if there was a significant movement between
8 different years, which is what this is predicated on, then I can see that they would have to
9 deal with it one way or the other. The other way to deal with it may be through the market
10 mechanism to approach the gas supplier and suggest alternatives, but I can see if there were
11 significant differences that would be an issue, I agree, yes.

12 Q Under the Legacy MSAs what we know is that the CMOs get at least – at least – 980,000
13 charge-free credit meter replacements each year? A. I would accept that.

14 Q If you go then in this Decision, if you still have it open in front of you, to p.15 of the
15 external numbering, you see there that blue histogram? A. Well it is black and white in
16 mine, but I will accept that it may be blue.

17 Q If the case turns on that, I would be surprised! A. In the tradition, yes, I accept it.

18 Q This is taking the year of installation of these meters, this is figure 1, “Age profile”?
19 A. Yes.

20 Q So this is taking the year of installation of these meters in the legacy stock as a proxy for
21 age, and it is a snapshot as at 31st December 2004, and what we see is that the number that,
22 as it were, might come of age, in one year and become free to replace, say, a 20 year
23 threshold could be 0.4 million, taking that first bar, or in another year 1.4 million taking the
24 12 to 13 year old bar? A. Sorry, what was the question?

25 Q We see from this, do we not, that the number of meters which may fall into any particular
26 age, pass any particular age threshold, as you go through, could vary from a relatively small
27 number to a relatively big number? A. Yes.

28 Q So that age based cancellation charges, which incentivise a gas supplier to take out the older
29 meters could lead to further operational difficulties for CMOs based on the reasoning that
30 we have just been walking through? A. It could lead, but as I remarked, one of the ways
31 that the solution would come to is under age related people would move a bit further down
32 the path some years and a bit less down other years. I take your point that if there were
33 substantial differences it would not maybe be a sensible way to deal with this to have CMOs
34 taking out large volumes in one year and very small volumes in another year, but under an

1 age related approach, that would obviously be costly and then you could work your way up
2 and down the age to mitigate that aspect. So it does not follow that what you would
3 actually do is take out large numbers in one year, very few in another year. On year you
4 may be taking 17, 18, 19 year olds out, other years you may only be taking the 20 year olds
5 out ... natural way of dealing with ----

6 Q So as we saw with Meter Fit, for example, one might say for a particular period: “We
7 cannot manage now only targeting the meters of 20 years of age, or 18 or 15, we will have
8 to go all the way down to 12 years of age? A. That is pushing it to a very specific, you
9 were asking me the general question about whether they would be the same and I am saying
10 “No”, I don’t think the market would sort itself out that way, there would be some
11 agreement between the CMO and the gas supplier to smooth it if it were a significant
12 problem.

13 Q Yes, I understand that, but Professor Grout, if the gas supplier has contracted at the outset
14 for age-based cancellation charges, the fact that it may say to its CMO, “This year for
15 operational reasons you can replace all meters down to twelve years of age” will mean that
16 it will be incurring charges which it needs to pay to the meter provider - National Grid - on
17 all of the meters below the age threshold where they become free (twenty years of age).
18 A. Yes, that would be true. How much this happened would depend on how much
19 replacement there was.

20 Q Yes, of course. A. So, you may only get down to twelve years if you’re actually
21 replacing large volumes. I don’t know. That’s more knowledge about the practicalities of
22 the market than I have.

23 Q When we are considering the economic forces either pushing for or against the use of age-
24 related cancellation charges, would you also agree that it’s essentially irrelevant from the
25 CMO’s perspective, which is just putting in its new meter, what the age of the old meter is
26 that it is replacing? A. It would be a relevant factor that would affect the prices in the
27 market between the CMO and the gas suppliers, yes.

28 Q From the CMO’s perspective, it does not care, apart from with that consideration in mind,
29 what the age of the meter is which is being removed to make way for its meter. A. Yes, I
30 think that’s right, yes. I can’t see any reason why it would worry them that they were asked
31 to replace a two year old as opposed to a twenty year old meter.

32 Q So, if I can collect together now these factors -- We have seen from the perspective of the
33 CMOs that what matters is scale - the high volume of work they would like to have? A.
34 Yes. I agree that they would prefer more work than less - at appropriate prices.

1 Q And density? A. Density may help. I have no idea how big a problem it is. I understood
2 there are certainly voices that say it isn't such an issue, but I agree it would be a relevant
3 factor.

4 Q And stable work flows year on year is something that they would like? A. That would
5 obviously be attractive, according to the prices, yes.

6 Q So, if we go then to para. 26 of your report and your conclusion at the end, what you have
7 said there in the parenthesis sentence at the end is that at a general level the economic forces
8 associated with competition for installation of new meters is similar to the forces associated
9 with normal competition concerning the Legacy stock with both pushing in the direction of
10 age-related termination charges. Can we draw from our discussion that when one takes
11 account of issues such as density, stable work flows, gas supplier preferences, transaction
12 costs (both for the gas supplier and the meter provider) when you are contracting for a stock
13 of meters in the ground, the economic forces when you are considering a contract for the
14 Legacy stock could push you in the direction of a Legacy MSA style approach. A. I
15 would say two things to that: one is that you missed out probably the most critical thing that
16 CMOs would be interested in, which would be the absolute amount of work that is going on
17 in this market. That is the sort of critical thing. You will be willing to take hits on some of
18 these other things if there was, say, three times as much work in the market. I am not
19 saying these other factors are irrelevant by any means. We seem slightly to be disagreeing
20 about how important some of them are from what I have heard and talked to people in the
21 way of building up my evidence. But, I still think you're missing out the sheer scale of the
22 business which, more than almost anything else, is what the CMOs will be interested in.

23 Q Is it your evidence that the total amount of work available is going to be more under an age-
24 related approach than under a Legacy MSA-style approach? A. My view is that that
25 would be very probable, yes.

26 Q Where have you set that out in this report? A. The implication, I agree, I have written at
27 some point that the absence of age-related and Legacy MSAs would foreclose the market,
28 but I think it's fairly implicit in everything that I have said - and, indeed, I have a section
29 which implies that with Legacy MSAs it's much more expensive to replace certain meters --
30 --

31 Q Certain meters. A. Yes - the old ----

32 Q That is your para. 45 which we will come to. A. Yes. Okay.

1 Q Okay. Well, let us get there in a moment. Now let us consider your third method of making
2 payment arrangements consistent with normal competition, which is rental without PRCs.
3 That begins at para. 28 and following. Do you have that? A. Yes. Yes. I do.

4 Q You say there in para. 28 that one approach which National Grid might have adopted which
5 would be consistent with normal competition would be to meet competition by renting the
6 meters, but without imposing any form of PRC. You say that, and then say,

7 "This was the structure of the contract at the point of restructuring".

8 Yes? A. Yes. Sorry. I am a little lost. I thought you said para. 28?

9 Q Yes. Paragraph 28. That is what you say there. A. Yes. Yes. You started one of the
10 possibilities and therefore I was misled. I understand.

11 Q These contracts that you refer to at the point of restructuring -- These were the regulatory
12 price--capped no-notice terms which had been set by Ofgem under conditions where
13 National Grid had a legal obligation to supply the meters. Yes? A. I am less sure of that.
14 That's an interesting question. I have read various things and have asked questions about,
15 "Exactly where did these P&M contracts come from?" As far as I understand it, they
16 weren't imposed by Ofgem on National Grid. I've seen references in some documents to
17 say that National Grid developed these contracts. So, from what I know I can't agree with
18 your statement that these are regulatory contracts imposed by Ofgem.

19 Q I did not say 'imposed by the regulator'. A. I am sorry.

20 Q We are not going to discuss that now either. What I am asking you to tell me whether you
21 agree to is that these are -- The contracts that you are referring to when you refer to the
22 P&M contracts are the price-capped, no-notice contracts which pertained at this time. A.
23 Yes, they are. That's right. Ofgem's role in this, as far as I understand it, at least, was to
24 impose a price-cap within the contracts. Exactly who designed the contracts and how they
25 arose in the market situation is something I've not really got a completely clear answer to.

26 Q Let us not explore that now. Is it your opinion that these price-capped no-notice contracts
27 are contracts with terms (the price cap, the no-notice provision) that one would expect a firm
28 to have contracted for in advance of providing meters under conditions of normal
29 competition - that is, without any regulation? Or, are you merely pointing out here, as you
30 say, that this was the original structure of the contracts at the point of restructuring as a
31 historical fact? A. I'm saying something that falls between those two. I'm not saying that
32 I would expect this to arise in the first situation in a lot of situations - that is, if this was a
33 newly installed asset with twenty years to go. While this is feasible, I'm not saying that this
34 would be one of the ones you would expect to see a great deal of. Having said that, I'm not

1 just saying, “Oh, they were there”. I am going further than that and saying that given
2 National Grid’s position to deal with its Legacy stock this was a feasible route for National
3 Grid to follow. Somewhere between the two.

4 Q A feasible route. A. Yes, and ... (overspeaking) ... it’s consistent with normal
5 competition.

6 THE CHAIRMAN: Because it relates to installed meters? A. Because it deals with the Legacy
7 stock. They could have dealt with the Legacy stock and, indeed, if they’re doing that it
8 wouldn’t be implausible that they could do this with new and replacement meters and have
9 the same contract with everyone. So, I’m saying something between ----

10 MR. TURNER: I am sorry. When you say it is not implausible that people would do this with
11 new and replacement meters -- I think you were saying a moment ago that it was not the
12 kind of contract form that you would expect people without regulation to enter into in
13 advance of contracting. A. I’m saying that the sequence with which my three models
14 appear in my evidence is not accidental. I’ve started with what I think would be the most
15 plausible, in terms of the most likely to see, which is simply up-front payment involving a
16 transfer, probably a transfer to gas suppliers, but it could be a transfer to someone else.
17 Given unusual conditions and conditional on the fact that that isn’t what happened, and
18 there are long contracts, I then discuss what I think those long contracts would look like. I
19 then discuss the third possibility that I think would be feasible in this market, and that is
20 without any, or very short, removal or something – I’m not quite sure what the practicals
21 are. In terms of the order of these, I’m using the word “plausibility” in the sense that this is
22 the third. I think the other two ----

23 Q The least likely of the three. A. The least likely of the three, yes.

24 Q In para.29, can you help me with this: you express the view that it could have been
25 particularly attractive for National Grid, NG, in the years immediately following the
26 introduction of P&M contracts, to offer gas suppliers low priced, no PRC deals, and you say
27 that that would avoid or at least delay “any long run irreversible commitment by NG” –
28 yes? A. Yes.

29 Q You have seen Dr. Williams’ report? A. Yes – which one?

30 Q His second report in WS6. Can we just turn that up. It is at tab 22, the first tab, and if we
31 go to p.3078, you will see there extracts from two economics textbooks. Would you take
32 the first of those at the top, “Handbook of Industrial Organisation” by Katz, and read what
33 he says there. You have probably seen it before. He is talking about something which
34 Dr. Williams refers to as the “hold-up problem” – do you see that:

1 “Once the manufacturer has made sunk investments he is locked in to the
2 relationship to some extent. The dealer may be able to take advantage of this fact
3 to renegotiate the contract in a way that is more favourable to him.”

4 Do you accept the validity of this problem as a matter of economic principle? A. For this
5 case?

6 Q As a matter of general economic principle, first of all? A. Okay, conditional on the
7 “may” that you read out?

8 Q Yes. A. Then, yes.

9 Q Here, let us go to our case, National Grid has made irreversible customer specific
10 commitments with its installed Legacy Meters, has it not? A. Yes.

11 Q It has sunk costs in a customer specific relationship, and is it not therefore locked in – we
12 are looking at these installed Legacy credit meters? A. It’s locked in to their meters, yes.

13 Q So without having cancellation charges, which it does not at the point of re-contracting, it is
14 vulnerable to what is described by Katz as “repeated opportunistic behaviour”? A. Are
15 we talking generally or in this market?

16 Q I am talking now about National Grid and the position with these installed Legacy MSAs
17 sharing these characteristics? A. Right. My interpretation of the market, and here I differ
18 almost completely with Dr. Williams, is that this is not a hold-up problem. I can elaborate,
19 since this is almost the biggest difference between us on economic analysis.

20 Q Perhaps you ought to because then we can ask you some questions about it. A. To do
21 this, as Dr. Williams did, there are a series of inter-related factors happening here in terms
22 of the sunk investment, the role of the P&M contracts. So probably the first thing to deal
23 with, which is absolutely central, is this disagreement about the entry deterrents that happen
24 as a result of some costs in this market. That is a big issue on which we disagree.

25 Q So what you are doing now is you are going to explain what you have set out in your reports
26 at paras.62 and following? A. Yes.

27 Q All right, I understand. A. To answer your question, I need to that because ----

28 Q In that case, if that is what you are going to do, Professor Grout, I am going to tackle that,
29 but can we stay on track for the moment with my line of questioning and we will come to
30 that. A. Except I can’t answer your question without the other bit, because whether
31 there’s a hold-up in the economic theory depends on what alternatives are available to the
32 parties. What alternatives are available to the parties depends on the implications of the
33 sunk costs for the entry deterrents. In a sense, there are two disagreements between
34 Dr. Williams and I on this. We agree the things that are relevant within it, but I disagree in

1 the interpretation of the entry deterrents in this problem, and indeed actually it's a deeper
2 disagreement because I disagree with his summary of the literature. Once you are
3 conditioned on that I can then answer the question about the hold up conditioned on that
4 part. You can have half the story with the rest coming later, or you can let me do it in the
5 order that makes sense. You're right, you're going forward to a different piece of my
6 evidence because now the discussion is based on Dr. Williams' second report that came in
7 later. Therefore, the order with which I would need to unpack my evidence to answer that
8 is different from the order that it is in my initial report.

9 Q All right. Before we deal with the hold up problem let us have a few moments to conclude
10 what you say in this section, "Rental without PRCs", if you have got that in your report. Do
11 you have that? A. Yes.

12 Q You say if we look at paras.31 and 32 that what National Grid could have done would have
13 been to continue pricing at the price cap level if this was more profitable for it than cutting
14 prices – yes? A. Yes.

15 Q Have you seen or heard the evidence that this was indeed viewed by National Grid as a
16 more profitable strategy, charging at the price cap level than cutting its prices without
17 PRCs? A. Yes.

18 Q You saw that? A. Yes.

19 Q You would have no reason to disagree with their assessment that that was better for it?
20 A. No, if that's their assessment, that's their assessment.

21 Q You would have said, based on your report here, that that approach would have been
22 consistent with normal competition? A. Yes, with one caveat, the price that we're
23 discussing may or may not have – this is a price that is, as far as I see it, placed in a market
24 place by someone, the regulator has set it, somebody has designed the product, and that may
25 or may not be the price that would have happened in normal competition. Subject to that,
26 the rest of it I would agree with.

27 THE CHAIRMAN: You are comparing now the P&M contract or a different contract which also
28 has no PRCs, but which is at a lower rental?

29 MR. TURNER: Yes, both of those can happen under the P&M contract structure. What I am
30 exploring with Professor Grout is that National Grid might legitimately, and it would have
31 been normal competition, kept pricing at the high level rather than dropping its prices
32 because of CMOs coming in under the same structure and charging for its rentals at much
33 lower levels. (To the witness) As I understand it, Professor Grout, you are saying that such

1 a strategy, if continuing to charge at the highest level they could lawfully do, would have
2 been consistent with normal competition? A. Yes, that would have been.

3 Q You would therefore disagree with Ofgem who have said in their defence that a scenario on
4 which National Grid to charge the maximum regulated prices was hardly credible?

5 A. You're asking me what National Grid thought was best for them, you're telling me what
6 Ofgem thinks is credible. Both these parties know these markets many times better than I
7 do, so I am not going to stake my tent peg in either of these two. I just can't answer that
8 question.

9 Q You consider nonetheless that pricing – or you said a moment ago that pricing at the price
10 cap level was at least consistent with normal competition, and I think you would agree that
11 your view is that it is also credible that they would want to do that? A. It's possible. I
12 have not sat there in National Grid and looked at their business plans, and I have not been
13 party to detailed negotiations of
14 Ofgem ----

15 Q No, you are an academic economist? A. --- right, I am an academic economist, so you
16 are asking me to go just that little step further than I can go.

17 Q Now, at para. 64 of your report you make the point that:

18 “The key point about the effect of sunk costs on the legacy meter stock is that they
19 make the forward-looking costs of meter provision very low, since the only future
20 costs which will be incurred are avoidable costs.”

21 A. For National Grid, yes.

22 Q Yes, and that remains your position? A. Yes.

23 Q So you would agree that if National Grid had chosen to adopt a strategy of meeting
24 competition with no PRCs and dropping its prices it would have been likely to be able to
25 beat the price of any of its competitors for that reason? A. Yes. Not any of its
26 competitors because I don't know, but I agree it would help them maintain their position in
27 the market.

28 Q So an outcome of normal competition on your view would be that the CMOs would be
29 likely to be unable to compete for any discretionary replacements in the legacy stock
30 because National Grid, with its sunk costs and the low forward looking costs will
31 consistently undercut them, making it uneconomic for them to engage in that work?

32 A. In my evidence I have not gone that far in the sense that it is totally non-profitable. I am
33 not suggesting that there would not be any entry, but the general thrust of what you ----

1 Q With the economic forces? A. The general thrust is clearly that if they were on short term
2 P&M contracts with a much lower price this would make it hard for CMOs to gain business,
3 yes, I agree entirely.

4 Q And the Legacy MSAs on the other hand have allowed CMOs to enter and replace large
5 numbers of working meters from the legacy stock as well as the non-discretionary flow of
6 meters? A. Yes, as I say, you are using the word “large, but have to pay if they allowing
7 them to enter and take a chunk of the market, yes.

8 Q One man’s “large” is another man’s “small”? A. Exactly, yes.

9 Q So with that then, let me turn to the Legacy MSA’s normal competition section of your
10 report proper, which begins at section D, beginning at para. 35 and following. Do you have
11 that? A. Yes.

12 Q In para. 40 you suggest some reasons why a gas supplier might not want to replace a meter,
13 and you say, looking half way down that paragraph:

14 “Second is the possibility of the new entrant’s meters being improved upon in the
15 remaining life of the existing meter. This is a particularly important consideration
16 for young meters, since a supplier may risk paying several sets of PRCs if it
17 decides to keep up with new technology.”

18 And that remains your view? A. Yes.

19 Q So that type of issue may explain why gas suppliers could be reluctant to install a lot of new
20 dumb meters – I mean meters of the current kind which are not yet smart meters, which
21 would attract high age related PRCs, because they may only have to remove those a few
22 years down the line and replace them with smart meters? A. My comment refers to this
23 will be an explanation, a particular additional explanation for why people would not want to
24 replace young meters. So you should drop “young” in your thing and then I will agree
25 entirely your comment.

26 Q And Ofgem’s Decision, as you know, focuses what it has described as the inhibition of
27 suppliers from switching meters in the short and medium term when competition with
28 National Grid is nascent – do you remember that? A. Yes.

29 Q It is 4.166. You have read their Decision, you know that their counterfactual relates to the
30 period 2004-2006, during which it complains that gas suppliers have faced these increased
31 costs of swapping out meters? A. Yes.

32 Q Now, because smart meters have not yet materialised to any significant extent, would you
33 agree that this would have entailed heavier replacement with CMO meters precisely
34 replacement of dumb meters with new dumb meters on long term CMO contracts attracting

1 age related PRCs? A. Yes, the critical point with age related PRCs would be the
2 replacement of old meters with dumb meters and not the replacement of young meters with
3 dumb meters exactly for the reasons that I pointed out here.

4 Q Are you prepared, Professor Grout, like Ofgem, to accept that CMO contracts for the new
5 meters they put in, having a structure of age based PRCs would be normal? A. Yes.

6 Q And those could block future replacement opportunities in respect of the newly installed
7 meters which the agreements cover? A. They could do, it would depend on how old the
8 meter is. If the meter is a young meter then there is a long period that this will work, and
9 during that period that dumb meter may then become obsolete. This is less likely to be the
10 issue for old meters, so I agree it is a consideration but the extent of the consideration will
11 be very different for young and old meters, which is the point I am driving at here.

12 Q Just to be clear though, I am talking about the CMO meter which is put in ---- A. Yes, I
13 understand.

14 Q -- which we have assumed is going to be a young meter when it is put in? A. Yes.

15 Q So that may attract a high age related PRC precisely because it is a young meter? Sorry,
16 you nodded, again you will need to say yes? A. Sorry, yes.

17 Q You would say that that creates a greater foreclosure effect, would you, than the MSAs
18 which in your view are not consistent with normal competition? A. One point itself are
19 you saying? You will have to elaborate – are you implying that this single factor is what
20 causes the foreclosure effect? A. I am not implying that this single factor causes a
21 foreclosure effect, I am putting to you that if a CMO puts in a new meter, protected by a
22 system of age related PRCs, that the effect o the gas supply, which would need to incur the
23 cost of those age related PRCs on the young meter in the early years may be a greater
24 deterrent effect than the PRCs which appear in the Legacy MSAs in relation to the meters
25 that National Grid has on the ground? A. It may do ----

26 PROFESSOR STONEMAN: May I interrupt there? The CMOs are not being considered here,
27 they are not dominant and they can do whatever they want? A. Absolutely.

28 Q It is really what can National Grid do, given its dominance, that is the argument. So what
29 you need to do is compare MSAs for National Grid compared to age related contracts for
30 National Grid, the CMOs should be left out of it completely.

31 MR. TURNER: Well, sir, I understand what you say, what I am seeking to explore is whether the
32 foreclosure effect, the deterrent is greater as judged by comparison with the CMO contract
33 where Ofgem says that the charging structure is normal, that is the idea.

1 PROFESSOR STONEMAN: Well it should be a CMO contract applied to National Grid, not a
2 CMO contract applied to CMO because the CMO can do whatever it likes. If this market
3 develops over time so that the National Grid no longer becomes dominant, should it be
4 dominant at the moment, it can do whatever it likes – at the moment we are talking about
5 National Grid and that would be the better way for the questioning to go.

6 MR. TURNER: Yes, sir, I am grateful. Professor Grout, you say that consideration that new
7 meters may be improved on in the remaining life of an existing meter, and I am going back
8 to your para. 40, is less important in relation to older meters which will have to be replaced
9 in the near future anyway - yes? A. Yes.

10 Q If the older meter is not on the policy schedule, it may continue to work for many years yet
11 to come? A. It could do, yes.

12 Q And the problem from the gas supplier's perspective of burdening itself with a new dumb
13 meter shortly before smart metering comes along remains just as much of a problem, does it
14 not? (After a pause): You end up with a new dumb meter that is expensive to replace.

15 A. But you have to look at the alternative. If you have an old meter, then you are quite right
16 that the likelihood that a new meter will come along in a short period is less than if you
17 have a young meter which lasts for a lot longer. So, as far as I'm concerned, it just makes
18 lots of sense if you're a gas supplier if you face this problem and there's competition in the
19 market -- It makes lots of sense to replace the older meters where the probability that the
20 new meter will come along -- a new innovative meter will come along before it has to be
21 replaced is much less than if you have a younger meter.

22 Q Yes. Why would you replace an older meter at all if you do not need to, when if you wait a
23 few years there is a chance of being able to replace with an upgraded type of meter? A.
24 Well, this is back to the point that I remarked about light bulbs. The world in this market
25 doesn't consist of perfectly functioning things that are all identical and then it suddenly
26 fails. So, you would have older meters that are performing less well than good meters. The
27 point I keep saying is that it's perfectly legitimate for a gas supplier to view these meters as
28 having different condition for what the gas supplier wants to use them for. You can't get
29 access very easily to these meters. So, as they're starting to get very old and not performing
30 well, it's not even good enough to know how their performance is now - you have to make
31 some conjecture as to how their performance would be in the next few years, given the
32 difficulties of replacing them.

33 Q Yes. Now, at para. 45 of your report you say,

1 Buying out older meters is as expensive as buying out younger meters. This is in
2 contrast to what I would expect of a rental contract with PRCs in the normal
3 competitive market and one would expect this feature to foreclose the market
4 which would otherwise exist for older meters”.

5 Yes? A. Yes.

6 Q Now, we have established that the CMO does not care inherently whether it is replacing an
7 old meter or a younger meter - from the CMO’s perspective. A. Well, directly, of course,
8 if that affects the prices at which the gas supplier is willing to pay for this to happen, which
9 it may do because of the PRC -- But, you are right - directly, it will not affect the men in the
10 van.

11 Q You talk about ‘the foreclosure of the market which would otherwise exist for older meters’
12 -- The meters that the CMOs are putting in are new meters - not older meters. A. Yes.

13 Q There is, I suggest, no market for older meters. A. Yes. DCMs, that’s right, yes.

14 Q The market that the CMOs are participating in is to supply new and replacement meters.
15 A. Yes.

16 Q There is no foreclosure of that by means of the Legacy MSA relative to an age-related
17 counterfactual. What you are interested in is whether the total opportunities for replacement
18 work are at least as great. A. The relevant thing from the CMO’s perspective is how
19 much business there is. Are you suggesting that there would be the same business under
20 the MSAs as an age-related?

21 Q I am putting to you that there is no reason to suppose that under a Legacy approach that
22 there is a lower volume of total business than under an age-related. A. I could think of
23 lots of scenarios where that wouldn’t be the case.

24 Q You can think of scenarios where that would be the case as well. A. Wouldn’t be the
25 case --- Sorry. Yes. Yes.

26 Q Now, at para. 46 you deal with maintenance replacements. You say in the second sentence,
27 “Under the MSA maintenance replacements carried out by National Grid itself,
28 and the new meter is governed by a new contract, the NR/MSA. If National Grid
29 were unconstrained by normal competition and wanted to foreclose the market,
30 one way of dealing with failing meters would be to insist on replacing them itself,
31 but at the same time renewing the relevant contract to ensure that National Grid
32 fully benefits from the rental of the new meter”.

33 A. Yes.

1 Q First, two points of clarification. You say that under the MSAs maintenance replacements
2 are carried out by National Grid itself and the new meter is governed by new contracts, the
3 NR/MSAs. Are you assuming that the MSAs are a package and that the gas supplier
4 signing a Legacy MSA will not have had a choice as to whether to sign the new and
5 replacement MSA? A. I am not assuming that. This sentence here is based on the
6 answer to the question I asked, which is, "What happens to meters in this category?" I was
7 informed that they almost all -- There is a footnote that suggested they almost all become
8 National Grid new and replacement meters.

9 Q So, if a new meter provided by National Grid can equally be governed by the P&M
10 contract, does that affect your opinion in this paragraph in any way? A. Let me think
11 about that for a second. (After a pause): I think in terms of foreclosure it would clearly
12 be much stronger if the new and replacement involved a very long contract. It would not
13 necessarily -- I do not want to commit myself off the top of my head to say that an
14 alternative P&M would involve no foreclosure because this would depend on the prices and
15 what the arrangements would be. So, I don't think I could go that far, but I'm perfectly
16 happy to see that with a long contract it would give them a much stronger foreclosure
17 position.

18 Q Secondly, you say, "If National Grid wanted to foreclose the market --" Let us be clear.
19 Have you seen any evidence of National Grid wanting to do that? A. Gosh! Do you mean
20 legally, or ----

21 Q I mean in practical economic terms - to deny opportunities. A. All right. My
22 interpretation of the MSAs is that they have the effect of making entry much harder than
23 PRCs. To go as far as to say that, "National Grid deliberately did this to foreclose the
24 market", that -- I don't know about National Grid. In some sense it's a legal question
25 anyway.

26 Q Now, a point that you make in that paragraph is that,
27 "Under the MSAs National Grid has arranged to carry out replacement of failing
28 meters itself".

29 Yes? A. Yes. That's my understanding, yes.

30 Q Have you picked up from the evidence you have heard that gas suppliers are free simply to
31 direct all fault calls to their CMOs for meters to be replaced under the Legacy MSA
32 arrangements? A. I understand - and this is getting into more detail than I have - that this
33 is possible, but I understand there are constraints on that market. So, the outcome looks
34 rather like as I've described it here.

1 Q There are constraints on that market. A. That was my understanding. Well, there are
2 difficulties with CMOs doing this, but my understanding is that most of these meters end up
3 being replaced by National Grid.

4 Q Now, at para. 48 you say that the Legacy MSAs have the effect of setting a ceiling on the
5 rate at which National Grid will lose customers and that they effectively limit the rate at
6 which competition can enter the market. You see that. A. Yes.

7 Q You also say that a marginal extension to the 5.5 percent rate of replacement -- What you
8 describe as marginal ... 6.5 percent is very expensive. Yes? A. Yes.

9 Q This is because the MSAs are structured such that replacing any meter, no matter how old,
10 is as expensive as replacing new meters. A. Yes.

11 Q Would it be equally true for you to have said that the MSAs are structured so that replacing
12 any meter no matter how new is as cheap as replacing old meters? A. Well, as I say, my
13 understanding is that there are extra penalties in the MSAs if you replace disproportionate
14 numbers of new meters. So that wouldn't follow.

15 Q Leaving aside that mechanism being triggered, you would agree with what I have said - that
16 it is a flat rate? A. (After a pause): Yes. Yes.

17 Q Now, you have not set out in your report any calculations to compare the cost of a
18 replacement programme under the Legacy MSA as opposed to a system of age-related
19 PRCs, if that is what National Grid had used? A. I, personally, haven't, no, and I've not
20 made detailed calculations ----

21 Q So you have relied on the Decision's counterfactual? A. I've relied in part on the
22 Decision and in part on just thinking through myself how the economics would work of
23 accelerating as against slowing profiles.

24 Q And if a gas supplier wanted to replace a certain amount of its meter stock, under the
25 Legacy MSA, so long as it pays the PRCs, it can do that? A. That's my understanding,
26 yes.

27 Q So there is not an actual legal ceiling. The ceiling comes about because of the financial
28 disincentive to pay PRCs which might exceed the benefits of the replacement decision?
29 A. Yes.

30 Q That is also true of a contract with age related PRCs, that proposition? A. It is certainly
31 true that when somebody is making a replacement decision they will take into account the
32 PRC on the particular meter they are replacing. These numbers, of course, won't be the
33 same, which is one of my central points, that if you have a 25 year old meter under an MSA

1 you will have payment completion, whereas under an age related very likely a 25 year old
2 meter will incur no PRC at all.

3 Q Even under an age related PRC there are going to be vintages of meters that it is not
4 financially economic to replace? A. Yes.

5 Q You would agree with Ofgem that even a relatively low PRC can be sufficient to deter
6 replacement. Let me take you to that in their Decision, para.4.45, last sentence, p.75. There
7 is a big paragraph in the middle 4.45. If you look at the last sentence Ofgem makes the
8 point:

9 “As it costs a supplier around £11 a year to rent a DCM from NG, even relatively
10 low switching costs may exceed the commercial benefit of switching based on
11 using the same metering technology and make switching commercially unattractive
12 for the supplier.”

13 Would you agree with that? A. I’m willing to accept Ofgem’s deeper knowledge of the
14 market than mine. I will accept that. As I say ----

15 Q That is the position on which we take issue with you, Professor Grout. So that could
16 potentially, this relatively low PRC, relate to all of the meters on which a PRC is payable
17 under an age counterfactual? A. No, my understanding, at least the age related
18 counterfactual that I would have in mind or the age related contracts that I would expect to
19 emerge in normal competition, would have a life that would not be matched on to the
20 Legacy stock where there are apparently meters of over 30 years old. I would not anticipate
21 that all of these would be attracting PRCs.

22 Q So the ones that do have PRCs – forget the age threshold when they become free ----
23 A. Right, yes.

24 Q -- even relatively small PRCs could have the deterrent effect which Ofgem refers to?

25 A. Yes, depending on the numbers, but you’re right, yes.

26 Q So that would, in effect, set a ceiling of the rate at which a meter provider would lose
27 customers? A. It could either set a ceiling or it could set a benchmark that CMOs need
28 to, in some sense, undercut to get into the market. It cuts two ways.

29 Q Yes, it would have a deterrent effect ---- A. The problem can be resolved in two ways.
30 One is it can be resolved by a deterrent effect, and there’s not much entry. The alternative
31 is if CMOs are very keen to enter this market to establish a foothold, then this sets a
32 benchmark that that is how much they would have to offset to get into the market.

33 Q If we turn to your conclusion at para.51, we can see you are addressing this question of
34 whether the payment arrangements in the Legacy MSAs are consistent with those which

1 National Grid could have adopted under conditions of normal competition – we see that ----

2 A. Sorry, could you slow down, I've got to ----

3 Q I am sorry, if we go to the title of the question you are addressing, which is just above
4 para.35 in bold type, "The Legacy MSAs" – do you have that:

5 "Are the payment arrangements in the Legacy MSAs consistent with those which
6 NG could have adopted ..."

7 A. Right, yes.

8 Q Now we are on your conclusions on those questions here, and your conclusion at para.51 is
9 that the answer is no. A. Yes.

10 Q Your reasons are contained in the paragraphs between para.35 and 51? A. Some of my
11 reasons, yes – but, yes.

12 Q There are reasons not stated ---- A. I am happy to stand with those, yes.

13 Q The fact that the Legacy MSAs have the effect of setting a ceiling on the rate at which
14 National Grid will lose customers and that they effectively limit the rate at which
15 competitors will enter the market are features that one also finds under an age related
16 approach? A. PRCs of any sort are bound to affect the marginal decisions that people
17 make. I don't accept that age related PRCs – they will clearly limit the market relative to no
18 PRCs, so that I agree entirely.

19 Q In para.49, before we leave this section, you refer to further disadvantages of the glide path
20 as being practical problems for CMOs. You then explain that:

21 "Consider an arrangement between a CMO and gas supplier which sets out an
22 exact set of meters that the CMO will replace over time. Assume that for some
23 reason there is then an increase in the number of policy meters. The CMO and the
24 gas supplier would have to decide either not to continue with the plan to remove
25 the targeted meters, or to make Take-or-Pay payments or PRCs."

26 That is your reasoning there? A. Yes.

27 Q Professor Grout, that is, I suggest, a wholly unreal scenario because no CMO has contracted
28 with a gas supplier to replace an exact set of meters? A. Yes, I know.

29 Q The disadvantage that you have identified is not a realistic one? A. My understanding is
30 that if in a particular year under the Legacy MSAs a CMO takes out one more meter than
31 under the glide path then either it will have to readjust what its plans were next year to take
32 one meter less to get themselves back into the glide path, or it will end up paying PRCs on
33 this meter regardless of its age until it does reorganise the number it takes out so that it gets
34 back into the glide path.

1 Q The example that you give here relates to something slightly different, does it not, Professor
2 Grout, which is an example where there is an arrangement to replace an exact set of meters
3 over time. You are saying that you are not, in fact, referring to that, but to a general
4 situation relating to an agreement to replace an overall volume? A. What I am saying is
5 what stands in 49 is exactly correct. If there is no plan with the CMO and the gas supplier
6 to replace all the numbers in the street, and it's all exact in that sense, it's still the case that
7 if there is a plan to take so much out in each year and they decide to take, or the CMO takes
8 an extra one out in some year then there has to be a restructuring of that plan. As long as
9 that plan is not restructured there will be a Take-or-Pay on that meter regardless of what the
10 age of that meter was or anything.

11 Q So it is not just the exact set of meters that was perhaps mistaken here ---- A. That was
12 just an illustration.

13 Q -- but also the increase in the number of policy meters which you happen to mention just
14 now. Is that also not a feature of what you are concerned with? You refer in your example
15 to there being an increase in the number of policy meters. Was that part of your concern is
16 it the concern you have just explained? A. Well it would be true for the increase in
17 policy meters as well, because my understanding of how policy meters work is that if you
18 do not take out a requisite percentage then National Grid do take these out, that is my
19 understanding; it may be that they revert to National Grid so there will be an imperative if
20 the number of policy meters that you are required to take out goes up, that you would have
21 to meet this. So if that leads you to take out more meters in that year you would then some
22 how have to change your plans very quickly if you can to get back into the glidepath
23 scenario.

24 Q Can we clarify then on that basis, Professor Grout, are you aware that the Legacy MSA
25 works is that if the policy meter numbers go down below the maximum replacement
26 number that Ofgem says gas suppliers would expect, the overall free allowance stays the
27 same? A. Yes.

28 Q So to that extent there is no prejudice from the point of view of a gas supplier's CMO which
29 has undertaken to replace a particular volume of meters – yes? If the policy meter level
30 goes down first?

31 THE CHAIRMAN: I am a bit concerned about this, because this is really asking questions which
32 hare predicated on the extensive knowledge of how the contract works. Now, I am not sure
33 how valuable Professor Grout's answers are unless he really understands how the maximum
34 number ----

1 MR. TURNER: Well I understand that, madam, and I am happy to treat it on that basis and move
2 on.

3 THE CHAIRMAN: Yes, I think so.

4 MR. TURNER: Can we turn then to the impact of sunk costs on negotiating position and entry.
5 The issue that we left a little while ago? A. Yes.

6 Q Paragraph 57 of your report, under “Section F” you begin to deal with bargaining power and
7 sunk costs, and you say that you are addressing in paras 57 and 58 both National Grid’s and
8 Dr. Williams’ view on this question. That is Dr. Williams’ view in his first report - yes?
9 A. Yes.

10 Q You are aware that their argument is that National Grid’s bargaining position in the legacy
11 negotiations was weakened because it had sunk its costs in the installed meters, as opposed
12 to a situation in which National Grid had not yet done so? A. Yes.

13 Q We see that, for example, clearly from the text you quote at the top of p.19 (internal
14 numbering) of your report? A. Yes.

15 Q Your discussion then, in the following paragraphs, 59 to 62, starts by looking at the question
16 whether entrants prefer to compete against an incumbent in an industry without sunk costs
17 rather than where the incumbent has got sunk costs? A. Yes.

18 Q You then make the link that you were referring to a little while earlier, in para. 63.
19 Paragraph 63 your argument, as I understand it, is that if entrants are deterred from
20 competing against National Grid because of these sunk costs of the legacy stock, then the
21 gas supplier might not be able to use the threat of replacement by CMOs against National
22 Grid in the negotiations to bargain for better terms? A. Yes.

23 Q Now, is it your opinion that what you call in para. 63 (last sentence): “... this extreme
24 example” has any resemblance to the facts of the case? A. They do have a resemblance
25 to the facts of the case.

26 Q Because the gas suppliers in your view were not able credibly to threaten replacement with
27 alternative meter providers? A. That is true, predicated on the fact that the facts of the
28 case – if one takes this in the extreme economics we have here an example of where, despite
29 what National Grid have said, we have an example of where the sunk costs would
30 completely prevent entry. In practice, in the real world, of course there is always somebody
31 who wants to get into this market whatever happens, and they are willing to throw money at
32 it. There is always scope for some competition so we have seen some, but in terms of the
33 economics of the particular structure of this market, this is a case where entry deterrence

1 would actually occur with sunk costs, and that is in complete contradiction to Dr. Williams'
2 evidence; this is one of the big areas where we disagree.

3 Q Focusing it still on this extreme example, and its resemblance to the facts of this case, I
4 think we do know that the gas suppliers threatened accelerated replacement of the installed
5 meter assets and that National Grid bargained against that in the negotiations? A. Yes.

6 Q And at para.67 of your report you go on to make what appears to be a more qualified claim
7 about the extent of the threat to National Grid from the accelerated replacement by CMOs,
8 not that CMOs were not out there, because they were deterred by these sunk costs from
9 contracting at all, from throwing their hats into the ring. You say:

10 "Indeed, it could be argued that the form of the CMO contracts which one
11 observes in the Meter market, including the length of the payment commitment
12 periods that apply, is itself a function of the threat of post-entry aggressive pricing
13 by NG, given the extent of its sunk costs."

14 A. Yes.

15 Q That is the way you see the problem arising? A. I see two things happening in this case,
16 one is that it would be harder for CMOs to enter at all, so some CMOs may enter and there
17 may be others that were excluded. Of those that enter, they would in the circumstances be
18 looking for more protection than they may be looking in other circumstances.

19 Q Can I test that? You would expect a CMO, before sinking investment, to contract for
20 rentals with some payment completion guarantees? A. Yes.

21 Q And that is what we have seen has in fact happened in this market? A. Yes.

22 Q And are you saying then that the length of the payment commitment period will be affected
23 in some way because of the threat of post-entry aggressive pricing by National Grid?

24 A. That is perfectly possible, yes.

25 Q Well can we then clarify exactly which are the meters on which there is going to be this
26 post-entry aggressive pricing by National Grid against the CMOs. As we see from the
27 second sentence of your para. 64 we appear to be talking about the Legacy meters, the
28 installed meters? A. Yes.

29 Q So none of this enables National Grid to provide a new or replacement meter at low cost to
30 threaten an installed CMO meter? A. Yes, that is right.

31 Q And, as you say, at para.11 of your report we looked at a little while ago, the re-use value of
32 the legacy credit meters, which we are concerned with, is very low or zero? A. Yes.

33 Q So it follows from that, that those legacy credit meters cannot be used to threaten a CMO
34 meter which has been installed at another location? A. CMO entry in this market has two

1 interpretations. One is that the CMO sets its stall up in an attempt to win business. The
2 other aspect of it is that the CMO has to put the meter on the wall to provide the service.
3 When a CMO sets up its stall to enter a market it will have to compete with National Grid at
4 this point to win business. Now, quite rightly, as has been pointed out throughout this
5 discussion the CMO will want to have a contract signed before it puts the meter on the
6 wall, but clearly the price that that happens at and what that contract looks like will depend
7 on the competition between National Grid, for the legacy meter that is sitting there, and for
8 the CMO to replace it. So that will lead to some form of competition, but the contract
9 critically, which I understand as well Dr. Williams made a big point about, the contract
10 would be signed before the meters are possibly even purchased by the CMO, let alone put
11 on the wall.

12 Q So a CMO which has removed a legacy meter of National Grid's and then put in one of its
13 meters is not going to need a longer payment commitment period in the contract because
14 there is a competitive threat from the stock of National Grid's other legacy meters, which
15 have already been installed and are sitting there in other locations? A. I am not sure that
16 follows at all. You're a CMO that enters and puts a few meters on a wall -- How much
17 money you make out of these meters depends on the protection period in the contract and
18 the probability that you will remain competing in that market afterwards. If you're a very
19 small supplier with a small number of meters, looking forward for the whole period, you
20 may well not expect to have a huge presence in this market over twenty/twenty-five years.
21 It's uncertain. So, therefore, what you think you need to do to protect your revenue flow for
22 those investments may be very, very different than if you had a quarter of the market
23 because some customers will take your meters for much longer, and therefore you will not
24 expect full payment for each individual meter on each individual contract. It will be a
25 balance. The weaker you are in the market, the less it gives you that freedom or confidence
26 that you will be around of the scale to do very well in this sort of long-term return. So, I
27 don't think it does follow.

28 Q Now, can we return to the issue of the hold-up problem that was referred to by Dr.
29 Williams? We discussed that this is the problem that a CMO faces - or a meter operator
30 generally - if it sinks its investment before having agreed terms for the meters. Yes? The
31 description of the problem when you are held up. A. No. Sorry. No.

32 Q You have sunk your investment ---- A. Could you say that again?

33 Q If you sink your investment ---- A. You said CMOs -- The hold-up problem, as far as I
34 understand it ----

1 Q If any meter operator ---- A. Yes. Okay.

2 Q National Grid or anybody else. That is the problem that arises. If you sink your investment
3 first, you are in a weaker bargaining position ---- A. No. No. No. You keep saying
4 this, but I disagree. The facts of this case are such that it is not at all clear -- in fact, it is
5 more than that. This is not a hold-up scenario in the way that you are describing it.

6 Q Are you saying that National Grid was not in a weaker position in bargaining with gas
7 suppliers in circumstances where its meters were already installed and it had made
8 customer-specific relationship costs/investments with the gas supplier as opposed to a
9 situation where it had not yet contracted and was in a similar position to the CMOs? A.
10 Yes.

11 Q Your position is that it was actually not in a weaker bargaining position. A. Yes. At the
12 economic theory level in this case the entry deterrence - although you sign the contract
13 before the meter is on the wall - aspect of National Grid's investment is still good to deter
14 entry and therefore following the economic theory of it, we wouldn't have a holdup
15 problem in the way you describe it. I'm very happy to talk about this -- to go further,
16 because it is essential -- My point is very clear - that as far as I see this, looking at the
17 economics of the case - National Grid is not weakened by the fact that it has 97 percent, or
18 whatever percentage, of the meters and that this is a sunk cost in this market.

19 Q As compared with the situation where it was bargaining without having sunk that
20 investment. A. Yes. If it was a player in the market with other players and they had sunk
21 no investment, my view is that they are in a stronger position here because they have sunk it
22 even though the CMOs are able to sign contracts before the meter is on the wall.

23 Q This is in circumstances that you have described in your report, because you say the threat
24 from CMOs is reduced because they will fear post-entry aggressive pricing by National
25 Grid against them using its Legacy meters. A. Yes.

26 Q I think we have explored that sufficiently. A. Well, no ----

27 THE CHAIRMAN: If you would like briefly to explain why, Professor Grout? A. Yes.
28 Maybe the best way to do this would be to actually go to Williams 2 because that's where
29 the absolute dispute is laid out.

30 MR. TURNER: WS6. A. The reason it's useful to go here is because there seems to be a
31 misunderstanding of what I'm saying. I have an example -- a very, very brief example in
32 my evidence which at no point says that the entrant has to sink its costs in meters before
33 there is an entry deterrence. Dr. Williams says that he couldn't understand my example,
34 and very helpfully, in his appendix, gave what was his interpretation of my example. The

1 critical difference - and the difference between us - is that he presents my example in 66 as
2 Stage 1 - the incumbent sinks its investment in meters; Stage 2 - the potential entrant
3 decides whether or not to incur its sunk costs of entry, which presumably would be the
4 purchase of the meters and potentially the installing; then pricing takes place; and entry is
5 deterred because that pricing is very aggressive because you've got two people in the
6 market, both with sunk costs (and potentially, in this example, zero marginal cost).

7 Dr. Williams describes the model that he thinks is relevant for the market. His Stage 1 is at
8 p.3081 (p.24 in his numbering). Stage 1 - the incumbent who's already sunk its costs in the
9 meter, and potential entrants have not yet sunk their costs, and then if the incumbent wins
10 the contract then, and only then, will it sink its costs in the meters to supply the contracts.
11 So, that's the fundamental difference - that he's saying that that model where you sign the
12 contract before you put the meter on the wall doesn't lead to entry deterrence and that the
13 entry deterrent model is where the incumbent sinks its costs, and then the entrant similarly
14 sinks the costs, and then there is an enormous price fight. That's the difference between us.

15 Q The factual situation, to be clear, which he is describing here you would accept is the factual
16 situation which pertained - that we have an incumbent which has sunk its investment in the
17 meters, and we have potential entrants deciding whether or not to incur the sunk cost of
18 entry and doing so before contracting. A. Yes. We have entrants that have set up their
19 stall to enter, but critically - and I accept this completely - they do not put the meter on the
20 wall until the contract is signed. I agree. So, Dr. Williams is saying that in those
21 circumstances there won't be entry deterrence.

22 Q That is correct. A. So, it's correct what he's saying, yes. It's not actually correct that
23 that's what the economics literature says. I would say two things about this, because this is
24 very important: (1) to look at pretty much the fundamental paper in this area which Dr.
25 Williams himself actually put in his evidence, which is the Dixit paper, and then I would
26 just talk about why this result holds.

27 Q Can you summarise in a nutshell, if you have not already done so in the answers you have
28 given so far, precisely the point that you want to make within the limitations of time? A.
29 The point is that in a market where the entrant can sign the contract before the meter is in
30 place you will still get entry deterrence by an incumbent that has some costs. ...
31 (overspeaking) ... Sorry?

32 Q This is based on the reasoning you have set out in your report already which we have
33 discussed, or some different reasoning? A. No. No. No. It's exactly -- I gave a simple
34 model. Dr. Williams said he didn't understand it and gave another model in his appendix

1 which he claims is what I wanted to say. My model allows perfectly for people to sign
2 contracts before they put the meter on the wall. That is the entry deterrence literature will
3 say that the entry deterrence takes place in those circumstances as well as the extreme
4 circumstances that Dr. Williams has said is the model that I am purporting to show. Now,
5 this is a fundamental ... (overspeaking) ...

6 THE CHAIRMAN: Which is where both sides have sunk their costs. A. They have both sunk
7 their costs, yes. The easiest way to deal with this is first to go to Dixit's paper, because that
8 is like one of the fundamental references in the literature, and then I would just talk, if you
9 wish, very, very simply, in two minutes, why that is the case.

10 MR. TURNER: Madam, I am in your hands.

11 THE CHAIRMAN: I think we will have to go back to the literature ourselves in due course and
12 come to our view. But, I am not sure we are going to get much further now.

13 MISS CARSS-FRISK: I am a little concerned that Professor Grout has not actually been able to
14 offer his conclusion on this point. I wonder if he might just be given the chance to do that
15 very briefly?

16 MR. TURNER: I am absolutely content with that. Professor Grout, is the opinion that you want
17 to express something different from the opinion which you have already expressed in your
18 report, or the same? A. It's the same as what I expressed in my report, and contradicts
19 what Dr. Williams has said in his evidence.

20 Q It relates to the effect of a threat of post-entry aggressive pricing by National Grid using its
21 Legacy meter stock. A. Yes. If you can sign the contract before the meter is put on the
22 wall, National Grid will compete with the meter operator before the commercial meter
23 operator puts his meter on the wall. The price will be bid down. It will be bid down to a
24 point where National Grid's marginal cost is zero, the entrant's marginal cost is basically
25 the price of the meter. National Grid will compete with the CMO in this context and it will
26 be in National Grid's interests to keep repeating pushing the price down and they will go
27 one step further than the CMO, and the CMO, even though they can sign a contract before
28 the price is set, National Grid can undertake them.

29 Q Professor Grout, finally then on this topic, what you have just described with National Grid
30 competing down to that low level and the competitors being excluded is not what we have
31 seen to have emerged in the contracts of British Gas in this market, is it? A. No, you are
32 quite right, I have described the pure economics of the example. When it comes to the real
33 world, as I said earlier, there will be CMOs who are desperate to enter the market. Some
34 CMOs will be excluded, some CMOs will still choose to enter, they will look for more

1 perfection. So I'm not saying the textbook model with no entry is exactly the model. I am
2 saying that there will be entry deterrents.

3 Q Let me turn to one other aspect of the hold up problem, Professor Grout, which is referred
4 to in para.22 of your report concerning the level of termination charges. Your position there
5 is that normal competition, it would not be unreasonable to think, would suggest National
6 Grid could anticipate to negotiate contracts for meters that have very recently been installed
7 – ones that are already on the wall – that are little different from contracts that would have
8 been implemented by other suppliers a short period later. You have overlooked here, have
9 you not, in this context, the hold up problem, because the contracting for meters which are
10 already on the wall and where the costs are sunk will be different from the dynamics of
11 bargaining for the rental of meters where those meters have not yet been put on the wall and
12 where the costs have not yet been sunk? A. No, I am not ignoring the hold up problem.
13 The first thing you need to realise is this is not a hold up problem at all. The hold up
14 problem is the following: if someone sinks their costs and they think that the other party
15 will be able to take advantage of them, which is the hold up, then before they sink the costs
16 they think through what they can do to protect their position. This is essentially what we
17 call the “hold up problem”. What we are discussing here is a possible hold up as opposed to
18 a hold up problem. That may look as if that's just a typical economist being rather narrow,
19 but actually the whole of the literature on the hold up problem has to assume there's a hold
20 up before you can analyse the hold up problem. So if you read the literature you will come
21 to the conclusion, “Oh, whenever this happens there's a hold up”. I've formalised the hold
22 up problem in 1984, and I basically just assumed there was a hold up to analyse the hold up
23 problem. So if you look at that literature it does give that impression. What we have here
24 is, if you follow the economics as I've described it, you would have entry deterrents. So
25 there would be no hold up at all because the gas suppliers would have nowhere to go. Even
26 if – even if – it was not that and the gas suppliers could move very, very quickly to an
27 alternative CMO the nature of this particular problem would not be the nature of a normal
28 hold up problem. The normal hold up problem is that parties are bargaining and
29 Dr. Williams has introduced details of the bargaining. How this bargaining analysis works
30 is parties make an offer, the other party accepts or rejects, the next party makes an offer, and
31 they keep going until they come to some acceptable offer. What drives the parties to come
32 together is the fact that as time passes these parties are being heard losing in some way and
33 that's the imperative that brings about a solution.

1 That isn't actually what the structure is here of the economics of the case. Imagine National
2 Grid make an offer, British Gas say, "We have got all these people outside", so they make a
3 counter-offer. That's rejected by National Grid who make another offer, and this process
4 goes on. During this process National Grid aren't being hurt. What is happening while
5 these negotiations, these alternating offers are being made? The answer is National Grid is
6 continuing on the P&M contracts with British Gas. So the normal imperative that drives
7 both the parties to come to some agreement and hurts, in a sense, the party which has sunk
8 costs does not happen here. If you follow through literally the mathematics of the case you
9 would find that National Grid aren't in a weak position at all. That's conditional on British
10 Gas being able to move very quickly.

11 The previous point, which is the big point, is that they don't have that option anyway
12 because of the entry deterrent aspect of this 97 per cent of huge sunk costs.

13 Q We will talk about that in two further and final questions, Professor Grout. First, you have
14 seen the facts of this case and what actually happened in relation to bargaining with gas
15 suppliers. You are familiar with that? A. Yes.

16 Q We know that the CMOs never actually had to enter for there to be a credible threat that the
17 gas suppliers could use to obtain lower prices from National Grid in the context of
18 negotiations under the Legacy MSAs. You will accept that presumably? A. The price in
19 the Legacy MSAs is less than the price under P&M. There is an enormous risk transfer,
20 viewed at least from Grid's point of view, from being under a position of P&M contracts
21 where they felt they were likely to lose a lot of business, to what is essentially not much
22 short of a risk-free cashflow over the next 20 years in an MSA. So I can't answer the
23 question if I risk adjust, and I do this a lot for companies where they ask me to look at
24 particular bits of the business, and make some sort of adjustment for risk. I haven't done
25 the exercise, but just looking at these numbers roughly it doesn't strike me that there is a big
26 price difference between an MSA type contract and a P&M.

27 THE CHAIRMAN: That is not something that we have gone into so far, and I do not suggest we
28 start now.

29 MR. TURNER: I am not going to. Professor Grout, you said National Grid feared it would lose a
30 lot of business and its prices ended up lower than under the P&M terms – yes? A. Not if
31 it's risk adjusted, I haven't accepted that.

32 THE CHAIRMAN: No, I do not think so. I think he said the opposite. A. Well, I wouldn't
33 want to go that far either, madam. I don't know the answer, is what I would say.

1 MR. TURNER: Let us go on to the topic of significant market power more generally, and the part
2 of your report dealing with the regulatory asset value, which is at section E.

3 THE CHAIRMAN: Just remind us, Mr. Turner, what aspect of the case this question about the
4 similarity or otherwise of regulatory asset values with sunk costs, how it fits into the case?

5 MR. TURNER: The dominance part, because of the opinion of Dr. Williams on which we rely,
6 that they were unable National Grid in the bargaining to even recover anything approaching
7 their sunk costs, to objective justification in the sense that it was put forward by Ofgem that
8 the justification for these sorts of arrangements might be the recoupment of customer
9 specific sunk costs, and here this is a lower amount, and the question of abuse in the sense
10 that, as you heard from Dr. Williams, the price that is set under the P&M contracts by
11 reference to the regulatory asset value in a sense has a relationship to the competitive level,
12 and that the price therefore established in the Legacy MSA is lower than that.

13 THE CHAIRMAN: Do you understand the relevance of that aspect of the case? A. Yes,
14 whether it will affect my answers is another matter, but no, that's fine.

15 MR. TURNER: The questions on this are quite limited, Professor Grout. Your conclusion at
16 para.56 in this very short section of your report is expressed in purely general terms:

17 "... even if a company has an asset base that is sunk, there is no particular
18 necessary relationship between sunk costs and RAV in any practical or economic
19 sense."

20 – yes? A. Yes.

21 Q Now you have refrained in your report from giving any opinions about the relationship
22 between National Grid's regulatory asset value and its sunk cost? A. Yes.

23 Q You were aware, were you not, that National Grid had put in detailed submissions and
24 evidence directly on that in its written representations which were referred to in the notice
25 of appeal? A. Yes.

26 Q Did you initially consider at any stage the possibility of you looking at that matter more
27 specifically in relation to National Grid and the relationship to National Grid sunk costs in
28 its metering business? A. No.

29 Q Did you discuss that at all with Ofgem? A. Yes, I ----

30 Q Ultimately you decide not to ----

31 MISS CARSS-FRISK: I am sorry to jump up again, but given that Mr. Steve Smith is not going
32 to be cross-examined I understood that it was common ground that Mr. Turner would not
33 therefore put a case inconsistent with Mr. Smith's evidence, and I am concerned that this
34 looks as though it is going that way.

1 THE CHAIRMAN: There is that concern and I am also concerned that we should not get into
2 discussing the conversations that Professor Grout had with his client as to what he was
3 going to cover, we have his reports, that is what he has covered. Why he did not cover
4 other things is not really for us to consider.

5 MR. TURNER: Madam, I am happy to accept that of course. Insofar as what my friend says that
6 is not correct because this evidence covers the same ground as Mr. Smith's but this is an
7 expert speaking to the same point.

8 THE CHAIRMAN: Well I think we have the distinction here between the theoretical aspect,
9 which is what Professor Grout is talking about, which as I understand it is regulatory asset
10 value can be arrived at in taking into account a number of different things, and then we have
11 Mr. Smith's evidence which is more to do with how National Grid's RAV was built up ----

12 MR. TURNER: Oh no it is not, madam. If you turn to that part of Mr. Smith you will see that he
13 also approaches the matter in general terms.

14 MISS CARSS-FRISK: Which is precisely why, in our submission, Mr. Turner really cannot then
15 put an inconsistent case to Professor Grout because he has chosen not to challenge Mr.
16 Smith.

17 MR. TURNER: I am afraid my friend is wrong about that, we have two witnesses giving
18 overlapping evidence, and you can choose in those circumstances which of the witnesses
19 you put ----

20 THE CHAIRMAN: Yes, but we do not know how Mr. Smith would have answered these
21 questions.

22 MISS CARSS-FRISK: Madam, we do not, except that that is right and I had understood it to be
23 accepted from early on in this case that Mr. Turner would not put a case inconsistent with
24 what our witness had said when he was not going to challenge that witness. Either the
25 correctness of that evidence is accepted or not?

26 MR. TURNER: Madam, that is incorrect, that was not understood from me. The number of
27 times that my friend says it does not make it accepted. If I may, I have very limited
28 questioning on this because it is accepted that Professor Grout deals only with the theory
29 and I was going to put the case to him of National Grid to which there has been no response.

30 MISS CARSS-FRISK: Well madam, that then leaves us in complete uncertainty. On the one
31 hand Mr. Smith is not being challenged, it would appear, on the same points that Grid
32 would now wish to challenge Professor Grout on. That leaves us in complete uncertainty
33 and, with great respect, is not the proper way to do these things.

1 MR. TURNER: May I just refer my friend to para.8.15 of the Chancery Guide and to the case of
2 *Re Yarn Spinners Agreement* [1959] 1All ER, because the rules on cross-examination in
3 this situation are very well established.

4 THE CHAIRMAN: Well I will allow this to go forward in a very limited way, Mr. Turner, but it
5 will be of course available to Miss Carss-Frisk to rely on Mr. Smith's evidence, whatever
6 Professor Grout may say, as being unchallenged evidence.

7 MR. TURNER: Madam, that is correct, but you will perhaps recall that all the way since 1959
8 where witnesses give overlapping evidence there is no obligation no obligation to challenge
9 both of them on that evidence, you can choose one, albeit, as Mr. Justice Devlin said, that
10 you cannot assume the other witness would have given the same answer.

11 THE CHAIRMAN: Well you will then be in the position of having to rely on whatever Professor
12 Grout says without having challenged Mr. Smith but I will not shut you out entirely from
13 doing this, but you must keep it to the limited way and bearing in mind that you have not
14 challenged Mr. Smith's evidence.

15 MR. TURNER: Yes, madam, it is understood, by the same token I would invite the Tribunal
16 perhaps to consult para.8.15 of the Chancery Guide and you will be familiar, of course, with
17 the restrictive practices case of *Yarn Spinners*.

18 THE CHAIRMAN: I am just concerned that Miss Carss-Frisk was not expecting that that aspect
19 of the evidence would be challenged and she is entitled to rely on Mr. Smith's evidence.

20 MR. TURNER: Her expectation is not a matter ----

21 THE CHAIRMAN: Well, let us proceed hopefully, if we can.

22 MR. TURNER: Professor Grout, when Mr. Shuttleworth produced his report on the matter in
23 July last year, did you read that and have the opportunity to consider it? A. I have looked
24 at some of it, but I do not want to claim that I am an expert. It may be useful, I am not sure,
25 to tell you why I did not actually get into this area very much, and I think that may help –
26 well, it may help me, it may not help you.

27 THE CHAIRMAN: Well I think perhaps we should wait to see what Mr. Turner's questions are.

28 MR. TURNER: The position, Professor Grout is that you have not put forward to the Tribunal
29 written evidence dealing with the points covered in his report? A. Yes.

30 Q And at para. 54 of your report you make a similar point to that of Mr. Stephen Smith, that:
31 "In coming to a view as to the appropriate RAV, regulators will take into account
32 of many factors, including the efficiency of the regulated company. If the
33 regulator feels that a company has been inefficient in its purchase and use of assets

1 then it is unlikely to fully reflect past investment in regulated prices. This could
2 mean writing down of the company's RAV, or applying a lower cost of capital."

3 A. Yes.

4 Q So you are pointing out that inefficiently or imprudently incurred past investment might
5 well be excluded from the regulatory asset base by a regulator? A. Yes.

6 Q And a regulator would not be happy about a company earning a return on inefficiently
7 incurred past investments? A. In general I think that would be the case.

8 Q You would agree with Mr. Shuttleworth, would you not, on the essential point that a
9 regulatory asset base is a statement of the unrecovered costs of investments, agreed with or
10 set by the Regulator, which have not yet been charged to the profit and loss account by way
11 of depreciation? A. No, certainly not as a blanket statement. The history of, whatever
12 you wish to call it, the rate base, regulatory asset value, whatever, started in the late 19th
13 century and there was a long period of dispute, regulators doing various things, uncertainty,
14 until about 1944 with the famous *Hope* case that went to the Supreme Court. There then
15 followed a very long period where the model that was used was relatively stable, it was the
16 historical cost approach where companies were allowed to earn a return on that. In those
17 circumstances, very much as you describe it that is the way that you could think of the rate
18 base. What has happened since 1990 is that the problem has now become much more
19 difficult – difficult for everybody, it is difficult for the companies on their side to deal with,
20 it is difficult for the regulators to deal with and there are three reasons it has become very
21 difficult. One is technical progress has meant that we are no longer in a position where asset
22 prices are always going up and the historical cost is a good proxy of what you want to get
23 back, no more so than in telecoms but this has affected a lot. Secondly, there has been
24 huge transfers of assets around the world, and therefore there have been privatisation
25 programmes, and so the very question of what you paid for these assets is now very, very
26 complicated and people have often been back to the stock market prices to go there. The
27 third reason - which has just slipped my mind for the moment -- Yes, the other thing is the
28 liberalisation programme. That is the third part. Now, all these three issues have actually
29 made sorting out the rate base much harder since 1990 than it is now. One of the reasons
30 that I can't sign off to that is that the regulators and the companies are all in a difficult
31 position. It's no longer a straightforward thing to do, and the regulator has certain objectives
32 they have to meet, and they have to not discriminate against companies and things of that
33 sort. But, within that it's quite a tough call - what the appropriate regulatory base should be.
34 So, the reason that I've kept out of this is essentially what actually happened on a day-by-

1 day basis and what promises were made to people tells you a lot about how it was being
2 thought. I didn't want to go there and get involved in that.

3 Secondly, there's an extra dimension which is that even if huge promises had been made by
4 Ofgem, this is a competition law case. Then there is an extra dimension to worry about,
5 about what that implies.

6 Q We will worry about that, Professor Grout. A. So, I can't sign off, I'm afraid, this
7 generic statement that you've presented.

8 Q Professor Grout, Mr. Shuttleworth has shown - and I think you are referring to this - that
9 National Grid's metering regulatory asset base is related to past costs. My question
10 originally related to the future costs. However the regulatory asset base has been derived, is
11 the regulatory asset base not a statement of the unrecovered costs yet to be recovered as
12 determined by the regulator, by whatever means, looking forwards? A. It can be, but it
13 doesn't have to be. The regulator --- This is a tool of regulation.

14 THE CHAIRMAN: Is your problem with that the word 'costs'? A. Yes.

15 Q It is the amount which it has been decided by the regulator is the amount which they ought
16 to recover and which they have not yet recovered. A. Yes.

17 MR. TURNER: I am happy with that. With that, we can leave the regulatory asset value and turn
18 to the penultimate section of your report, entitled 'The Voluntary Agreement'.

19 MISS CARSS-FRISK: I am not sure that Professor Grout, in the end, quite answered Madam
20 Chairman's question.

21 THE CHAIRMAN: I think I asked whether you were happy with the statement if the word 'costs'
22 was changed to 'amount'. A. Right. Sorry.

23 Q Whether or not the regulatory asset value in any particular case is the same as the historic
24 costs or some other measure of costs, do you agree that it represents an amount that the
25 regulator at some point thought was appropriate for the company to recover from its
26 revenue stream, and that the regulatory asset value is the amount that has not been
27 recovered yet. A. Almost I would agree. However, in British Gas' own history there
28 have been examples when the MMC have said, "Oh, you're only allowed to earn half the
29 cost of capital on this" and then later somebody says, "No, let's re-do it and we'll change
30 the asset base and change the cost of capital". It's all a bit of a minefield, I'm afraid.

31 MR. TURNER: It's all a bit of a minefield. A. It's just terribly hard for everyone.

32 Q But at any particular point in time when the regulator is discussing the costs of depreciation
33 in coming years for the purpose of setting a price cap, the regulatory value defines the cost
34 of depreciation and the associated return on assets in those years at any particular point in

1 time. A. The way it is operated in Ofgem, as I understand, that is not a long way from
2 the situation. But the whole thing is unfocussed. So, it just gets terribly hard. I mean, you
3 are trying to push me. This is the reason. I didn't want to give evidence on this. I didn't
4 want to spend ages going through, 'Who said this? Who said the other? What was this
5 number meant to be?' I just know it's a minefield. So, I just said to my clients, "That's not
6 a place for me to go". If you want my opinion, Steve Smith is the man who sat there - he
7 knows, as much as anyone, I presume, what Ofgem wanted their rate base to be at any
8 particular time. So, I'm sorry ----

9 THE CHAIRMAN: Let us leave it there, Professor Grout. A. I just cannot answer.

10 MR. TURNER: I have your position on that. Voluntary Agreement. Section G of your report,
11 beginning at para. 73. Here you consider the relevance to issues of market power and abuse
12 of the fact that a buyer has voluntarily entered into a contract. A. Yes.

13 Q Read what you say in para. 75. (Pause whilst read):

14 "The fact that all the major gas suppliers weighed up the benefits before signing
15 and considered they would benefit from signing the MSAs conveys no
16 information other than that they considered it rational to do so. It is perfectly
17 conceivable that gas suppliers may have found that the Legacy MSAs had
18 attractive short-term financial features that made them attractive relative to the
19 P&M contracts. This does not imply that the Legacy MSAs are not, or could not
20 be, abusive".

21 Did you ask Ofgem, before writing this, if you could look at the Gas Suppliers Board papers
22 which sets out their internal thinking on why they signed up to the MSAs, as opposed to the
23 fact that they did so, to see whether they were concerned only with short-term financial
24 features? A. No.

25 Q That would, however, have given some useful information, would it not?

26 MISS CARSS-FRISK: Not having seen them, it is probably hard for Professor Grout to
27 comment.

28 MR. TURNER: Madam, it is quite difficult to engage in questions with a constant interruption.

29 THE CHAIRMAN: That is not what Professor Grout is here to do. He has accepted, for the
30 purposes of this paragraph, that they did weigh up all the benefits and decided that this was
31 a good idea for them to sign. It is not for him to say whether that was right or not, or what
32 the justification was. What he is saying is that that does not necessarily mean that these
33 contracts are not abusive. That seems to me a matter for submission rather than for
34 Professor Grout to go into.

1 MR. TURNER: I absolutely agree with that, madam. It is the point that what he says is the fact
2 that they did this and signed up conveys no information. No, I agree with that. The question
3 is whether you can get more information if you look at their reasons because ----

4 THE CHAIRMAN: I agree with Miss Carss-Frisk. He says he has not looked at their reasons,
5 and therefore I do not see that he is in a position to say whether they are helpful, or not.

6 Q I am content with that. (To the witness): We turn to the last section of your report -
7 Innocent Alternative - Section h. In para. 79 you address National Grid's point on the
8 market power issue - that gas suppliers had this fall-back option of a contract on terms
9 subject to strict regulation. A. Yes.

10 Q At para. 79 you say,

11 "The gas suppliers do not have any certainty regarding how long the P&M
12 contracts will remain in their current form. When choosing between the Legacy
13 MSA and the P&M contract they therefore do not know what might happen to the
14 P&M contract in the future. I understand that it is anticipated that the regulated
15 price cap will be lifted and at that point National Grid may be free to raise the
16 rental price ----"

17 A. Yes.

18 Q Now, are you referring, when you say, "I understand it is anticipated --" to the point of view
19 of the gas suppliers anticipating that in their negotiations? A. No. I understand that the
20 P&M price cap would at some point removed. I am not saying that that is what the gas
21 suppliers think, but what I am implying though is that one would have expected them to
22 think that.

23 Q Do you mean Ofgem anticipates that? A. Yes. My information -- Basically this is just a
24 response to a question - What might happen to the P&M contracts? This is a response to
25 some comments in Dr. Williams' report where he had said that the P&M contracts are an
26 innocent benchmark against which we can look at the Legacy MSAs and my obvious
27 response to that was to ask, "Well, how long are the P&M contracts likely to remain?" I
28 asked people in Ofgem and they expected them to be removed at some point. Therefore I
29 don't see them as a twenty year benchmark against which you can test the Legacy MSAs.

30 Q Did Ofgem also tell you in those discussions that it was not intending to lift the price cap
31 until effective competition had developed? Or, did they not tell you that? A. That would
32 be my expectation anyway - that they would only be lifted if there was sufficient
33 competition to control -- or at least make the market effectively competitive.

1 Q The risk you identify of remaining on P&M terms for gas suppliers is that the prices under
2 the P&Ms may rise once those controls are lifted in the future. A. Yes.

3 Q You understand that the P&M terms are currently set to reflect cost with an appropriate
4 return on capital, subject to the PPM/DCM cross-subsidy. A. I'm not sure I do accept
5 that.

6 Q You would not expect in general though higher prices to be the outcome of effective
7 competition as compared to conditions of monopoly, would you? A. You mean regulated
8 monopoly?

9 Q Yes. A. Yes. I don't think it's implausible. It's just uncertain. Effectively competition
10 is not perfect competition. Perfect competition is very clear. All profits will be squeezed
11 and that will be the end of it. Effective competition is a much more nebulous concept. If
12 you look at the profits of monopoly and mergers cases all through the Fair Trading Act, you
13 will see that the profitability of large numbers of cases that they looked at and deemed
14 acceptable in whatever they were investigating, these numbers can be very, very high.
15 There may be reasons for it. It just does not seem to me that you can say, "Ah, there will be
16 effective competition and we can measure profitability so perfectly that we know that this
17 price will unambiguously remain lower whatever the P&M contract price represents". So I
18 wouldn't agree with that point.

19 Q In general terms, however, you would accept that under conditions of effective competition
20 you have constraints that are – and I am using your language in para.8 of your report –
21 sufficiently strong that no firm can abuse significant or substantial market power?
22 A. Yes.

23 Q The risk you identify then of a significant risk in prices following the introduction of
24 effective competition is not a realistic risk? A. I wouldn't agree with that. It's very, very
25 difficult. I've written things for the American Bar Association on this. It's terribly hard to
26 identify what you might think is an excessive pricing level in a market, at what point you
27 deem that this competition isn't effective. It's clearly not the cost to capital that you would
28 see in a regulated market. What that number is is very, very hard. There are lots of
29 examples where firms can earn quite high profits and that's deemed to be acceptable. If you
30 were in America for abuse they would wouldn't be interested at all in the level of price,
31 they're looking for the abusive aspects of what is going on in markets because the difficulty
32 of measuring the prices and the profitability. So the idea that price would never go above
33 the P&M, were someone to deem a market effective, seems to me rather an extreme view
34 and I wouldn't subscribe to that.

1 Q Professor Grout, to be clear, we are not saying that it would never go up without the P&M
2 constraint, I am putting to you that the risk of a significant rise in prices following the
3 introduction of effective competition is not a realistic risk for gas suppliers to have factored
4 into their thinking? A. A reasonable increase in price above the P&M contracts would
5 not be an implausible thing to happen in a market where – it is perhaps National Grid loss
6 market share and price caps were lifted. We’re getting into a vague meaning of words. The
7 central point is that the price could easily go above the P&M price in a market that Ofgem
8 deemed to be effective.

9 MR. TURNER: Madam, I have no further questions. I do apologise for the time this cross-
10 examination has taken and I notice that we are just after four o’clock.

11 THE CHAIRMAN: Thank you, Mr. Turner.

12 (The Tribunal conferred)

13 PROFESSOR STONEMAN: Professor Grout, that last discussion we have just had, would it
14 make any difference to your argument if, in the face of effective competition, the price fell?
15 Might it be that in the face of a price fall that a gas supplier might feel that the MSA
16 contract was no longer as desirable as it had been and is now carrying a lot more risk with a
17 lot less benefit? A. Yes.

18 Q Right. So it does not really make any difference which way the price goes whether it is up
19 or down? A. It’s just in terms of what was so called the “innocent alternatives” that this
20 would be a regulated price for 20 years.

21 Q One other question on something you can help me with. In addition to everything else that
22 has been talked about and you have been in the room quite a lot, there has been discussion
23 of a competitive price. I am not trying here to get at the competitive price, whether it is £12
24 or £7.84, what I am interested in is what are the characteristics of a competitive price in this
25 market. I have tried to have a go at defining this and I wonder if you would give me your
26 reaction to it. The competitive price is such that, given the existing stock of meters – that is
27 the Legacy Meters – and expectations of the future, the demand for these meters generates a
28 flow demand for new and replacement meters, the satisfying of which by an efficiently
29 operating supplier would generate zero excess profits. A. Okay, that sounds reasonably
30 acceptable. It’s such an awful blanket thing to sign off.

31 Q The characteristics of this are, first of all, there was a demand for the stock, and given
32 people’s expectations they would decide whether to change any stock or not. That demand
33 for the stock will then generate the demand for the flow of new meters and that should then

1 be satisfied by the suppliers of new meters in such a way that they do not make an excess
2 profits. A. That's right, yes.

3 Q And that will be the competitive price? A. Yes, you leave in the terminology, "excess",
4 which is slightly vague, but I agree, yes.

5 PROFESSOR STONEMAN: Thank you.

6 THE CHAIRMAN: I just had one question, which is going back to the very beginning with your
7 washing machine being installed, which is the difference perhaps between a lay person and
8 an economist's view of things. If you are thinking of buying a washing machine and you
9 buy a washing machine, if in six months' time somebody comes and says, "Would you like
10 to buy a washing machine?" my reaction is that I was thinking about six months ago and I
11 bought one and I am not interested in buying another one. That is my reaction just because
12 I have moved on to having other things to do and I have ticked off on my list of things to do
13 buying a washing machine and I do not intend to revisit it for some time. When Mr. Turner
14 asked you questions at the beginning he said the sale to you of your washing machine has
15 foreclosed that opportunity to sell your washing machine. What I am wondering is whether,
16 in economic terms rather than in lay person's terms, the opportunity to sell you a washing
17 machine in six months' time has been foreclosed because of the psychological reasons, if I
18 can describe them like that, or whether those reasons are not something that an economist
19 would take into account in considering whether there has been foreclosure in the market.
20 Do you understand the point? A. Certainly, rightly or wrongly, we wouldn't take into
21 account the psychological aspects of it all, other than that manifested itself in real economic
22 phenomena of switching costs. It is perfectly acceptable to think of a psychological
23 switching cost. What you do not want to do, having looked at brochure after brochure after
24 brochure and been to shops is do all that again after six months. My debate was really
25 about whether that would be different if you purchased the washing machine relative to if
26 you'd signed a long contract. But you're right, the psychological aspect would enter in that
27 way, because that would just be as valid a switching cost as any other switching cost.

28 THE CHAIRMAN: We are at ten past four. Miss Carss-Frisk, how much re-examination do you
29 have?

30 MISS CARSS-FRISK: It might be ten or 15 minutes perhaps.

31 (The Tribunal conferred)

32 THE CHAIRMAN: I think we will postpone that until tomorrow morning, but we do then need to
33 go back to the question of how we are going to deal with matters. I hesitate, Mr. Turner, to

1 ask you how long you are likely to be with Mr. Keyworth, but being realistic how long do
2 you think you are likely to be with Mr. Keyworth?

3 MR. TURNER: Well the first point is that this is delegated to Mr. Pickford. (Laughter). The
4 second point is that having been involved in this I believe it is fair to say it should be over
5 well before the short adjournment. It would help tremendously if we were able to begin at
6 10 o'clock tomorrow morning. If that is not on ----

7 THE CHAIRMAN: No, I am afraid it is not on.

8 MR. TURNER: -- we will bear that in mind, and we will do what we can to keep to that. (After a
9 pause) Mr. Pickford draws to my attention if there is re-examination and if the 10 minutes
10 becomes half an hour we may be squeezed to finish before lunch time.

11 THE CHAIRMAN: Yes, I think I can anticipate what you are going to say, Miss Carss-Frisk. I
12 think we will just rise for five minutes and decide what we are going to do.

13 (Short break)

14 THE CHAIRMAN: We will continue tomorrow morning with re-examination of Professor
15 Grout, so overnight you are in purdah, Professor. A. Yes.

16 THE CHAIRMAN: Then we will have the cross-examination of Mr. Keyworth, then we will
17 finish after Mr. Keyworth tomorrow, whatever time that is, and then we will hear
18 submissions on Wednesday and Thursday. We absolutely cannot go beyond Thursday
19 afternoon, we cannot sit on Friday, nor the following week, nor for some time thereafter.
20 So I think what would be helpful is for the parties to divide up Wednesday and Thursday in
21 time terms between them and bear in mind that they will be absolutely kept to that, and if
22 they are half way through a sentence then they will be chopped off and the next person will
23 take over because that is the only way that we are going to be sure that we will finish this.

24 MISS CARSS-FRISK: Can I say what we had tentatively discussed on the basis originally that
25 we were going to start tomorrow, which was that Ofgem would go until about 3 o'clock,
26 followed by the Interveners, and then for National Grid to have the full last day. On this
27 timetable, we are very grateful for your indication that we start on Wednesday, can I just
28 stress also the importance of Mr. Keyworth actually then being finished in terms of his
29 cross-examination hopefully by lunch time so that the parties do have some time to digest
30 the evidence.

31 THE CHAIRMAN: Yes, this is not intended to extend the period for which Mr. Keyworth is
32 giving evidence.

33 MR. TURNER: I have absolutely no intention of that, madam, we will try to keep it as short as
34 possible. At the same time having said that, we cannot anticipate how lengthy Mr.

1 Keyworth is going to be in giving answers, and assuming that he answers the question and
2 does not digress there is still a lot to get through, we will do our best.

3 THE CHAIRMAN: Thank you very much. Yes, Mr. Vajda, you are going to go on the
4 Wednesday, are you not? I know you had a problem on Thursday?

5 MR. VAJDA: Yes, assuming that all my friends' time estimates are correct I am going to be
6 going at 3 o'clock on Wednesday – when I say “going” I am going to be making
7 submissions at 3 o'clock on Wednesday, not going! (Laughter)

8 MR. RANDOLPH: I will go, hopefully at 4, which will leave me half an hour, if that is
9 convenient to the Tribunal of course.

10 THE CHAIRMAN: Yes.

11 MR. RANDOLPH: It would be unfortunate if the Tribunal had to rise at, say, five past four, it
12 would make my life difficult! (Laughter) But on the basis the Tribunal does not have to do
13 that and I can continue to 4.30 that would be all I would be looking for.

14 THE CHAIRMAN: Yes, I think that will be fine, Mr. Randolph, thank you. So we will meet at
15 10.30 tomorrow to resume. Thank you.

16 (Adjourned until 10.30 a.m. on Tuesday, 27th January 2009)

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