IN THE COMPETITION APPEAL TRIBUNAL

Case No: 1440/7/7/22 & 1518/5/7/22

Salisbury Square House
8 Salisbury Square
London EC4Y 8AP

Tuesday 20th May – Friday 6th June 2025

Before:

The Honourable Mr Justice Richards
Andrew Lenon KC
Anthony Neuberger

(Sitting as a Tribunal in England and Wales)

BETWEEN:

London Array Limited & Others.

Claimants

v

(1) Nexans France SAS
(2) Nexans SA

Defendants

AND BETWEEN:

Clare Mary Joan Spottiswoode CBE

Class Representative

v

(1) Nexans France SAS
(2) Nexans SA
(3) NKT A/S
(4) NKT Verwaltungs GMBH
(5) Prysmian Cavi e Sistemi S.R.L.
(6) Prysmian S.P.A.

Defendants

A P P E A R AN C E S

Ben Lask KC, Gerard Rothschild and Jamie Farmer (Instructed by Scott+Scott UK LLP) on behalf of Clare Mary Joan Spottiswoode CBE

Colin West KC (Instructed by Hausfeld) on behalf of London Array Limited & Others. Paul

Luckhurst and Tony Singla KC (Instructed by White & Case LLP) on behalf of Nexans Helen

Davies KC and Fiona Banks (Instructed by Macfarlanes) on behalf of Prysmian Daniel

Carall-Green (Instructed by Addleshaw Goddard) on behalf of NKT

Thursday, 22 May 2025

(10.30 am)

RICHARD DRUCE

Cross-examination by MS DAVIES (Continued)

THE CHAIRMAN: You suppose we ought to do the ...

MS DAVIES: Of course.

THE CHAIRMAN: So, some of you are joining us livestream on our website, so I will start with the customary warning: an official recording is being made and an authorised transcript will be produced, but it is strictly prohibited for anyone else to make an unauthorised recording, whether audio or visual, of the proceedings, and breach of that provision is punishable as contempt of court.

Before you start, Ms Davies, we need to leave today -- we need to rise today at 4.15.

MS DAVIES: I understand why.

THE CHAIRMAN: You understand why. Good. Sorry, so that we're not speaking in code, just between the bench and counsel, it is Roth, J's valedictory today, so we are going to that. We will give you your 15 minutes back, or some time, perhaps, with a shorter lunch break tomorrow and an earlier start tomorrow.

MS DAVIES: Thank you very much, sir.

Good morning, Mr Druce. When we broke yesterday we were looking at the 2010 actual, and I have a few more questions about the 2010 actual. We will, then, come to the counterfactual, I promise, so can we just focus for the moment on the 2010 actual?

Could we go to the joint memorandum {ROC-D/11/40}? Proposition 22, where you are addressing the fact that the Government's State Aid Notification to the EC shows it relied on the Ernst & Young levelised cost estimate with which you partially agreed and your explanation is that the State Aid Notification shows that this estimate from Ernst & Young did feed into the Government's assessment, but other documents show that this was not the main piece of evidence on which the Government relied.

Now, first of all, am I right in understanding that that is your interpretation formed as a result of your view of the various materials obtained from DESNZ?

A. That's correct. Yes.

Q. Just so we are clear --

A. Sorry, a logistical point. Should I be seeing a document on screen?

Q. Of course, Mr Druce. I'm sorry. I am not trying to cross-examine you blind.

(Pause for technical issue)

THE CHAIRMAN: In case it assists we can see on our Opus that overnight a new bundle has appeared in a ring confidential which is now what is displaying on the screen. I don't know if that is the cause of --

MS DAVIES: Does that mean that the joint memorandum has been moved into that bundle?

THE CHAIRMAN: I can't say, I am afraid.

MS DAVIES: In which case we cannot continue because I cannot cross-examine Mr Druce unless I can show him the joint memorandum.

Excuse me. (Pause)

The issue, sir, is that the Tribunal has access to the inner confidential ring, but unfortunately the Opus operator does not, which means we cannot show it to Mr Druce. If anyone has a clean hard copy of the joint memorandum we can --

A. I have a hard copy --

Q. You do have a hard copy?

A. I don't know whether that is sufficient to proceed.

Q. Well, if the Tribunal has access to it and my learned friends have access to it, then we can proceed on that basis, I believe.

THE CHAIRMAN: I can find it. Shall we try that and see how it goes?

MS DAVIES: Yes please, sir.

THE CHAIRMAN: Right.

MS DAVIES: So, let us just start again, Mr Druce, because I want to make sure you have seen what I was referring to.

I was referring to page 40 of the Joint Memorandum. The first paragraph where you explain your understanding that the State Aid Notification shows the estimate fed into the Government's assessment, but other documents show that this was not the main piece of evidence on which the Government relied; yes?

A. Yes. That's right.

Q. And the first question I was just clarifying with you is: that is your interpretation formed as a result of your view of the DESNZ disclosure?

A. Yes. That's right.

Q. Just so we are clear, what are you suggesting was the main piece of evidence which the Government relied on in relation to costs if it was not the Ernst & Young LCOE estimate?

A. As I explained yesterday, I think that the key piece of information the Government was using was the -- or the key thing the Government was trying to do was cover the costs of the three benchmark wind farms I identified.

Q. So in terms of the main piece of evidence, are you suggesting it is what the wind farm developers were asking for, what they confirmed they needed, or are you

suggesting it is something else?

A. I think this paragraph is referring to the variety of documents that I reviewed in the DESNZ disclosure that shows the Government going to great lengths to ensure that its banding decision would provide revenues necessary and sufficient to cover the costs of the three benchmark wind farms I identified.

Q. If we look at the Joint Memorandum, proposition 30, which is at page 51 of the Joint Memorandum which I understand that there may be a non-confidential version of the Joint Memorandum now at {ROC-D/15/1} for anyone who does not have access to the confidential version, but as I do not know which bits are said to be confidential or not it is a bit difficult, so if someone thinks I am coming along something that is confidential, perhaps I can be told quickly.

A. The screen has just come to life, by the way.

Q. The screen has come to life. Right.

Proposition 30, you have agreed with the proposition that there is no evidence in the DESNZ disclosure documents that the Government performed its own levelised cost analysis in addition to that carried out by Ernst & Young.

A. That is correct. I have seen no levelised cost of energy calculations performed by the Government itself

in the context of the 2010 Order. There are -- there is one in the context of the 2009 Order in the State aid clearance documents which led to the £140 per megawatt hour figure, but I agree that within the 2010 Order there was no such calculation as far as I am aware.

Q. So it follows from that, Mr Druce, that you would agree that there is no evidence in the DESNZ disclosure documents that the Government performed its own LCOE analysis in relation to your three key benchmark wind farms.

A. I would certainly agree that the Government -- I have not seen any calculations performed by the Government of the levelised cost of energy. What we do see, though, is quite extensive evidence of discussions between the wind farm developers and the Government about which particular assumptions it was most reasonable to make which would have informed the Government's reading of the Ernst & Young LCOE analysis, for example in respect of which sensitivities to consider and what weight to place on each.

Q. Now, the documents you were referring to presumably include the documents indicating that each of the wind farms had told the Government they needed 2.0 ROCs to proceed.

A. Amongst others, yes.

Q. And the documents indicating following the initial results of the Ernst & Young review, that the Government checked with them that 2.0 ROCs would suffice?
A. Yes, and as well as other documents indicating -- or documenting discussions with the developers on particular technical points, like the load factor or the impact of the OFTO regime or the cost of capital, things like that.
Q. None of those documents involve, do they, an LCOE calculation?
A. None of them directly report an LCOE result, no, but there is discussion in the disclosed materials about how -- about the sensitivity of EY's results to changes in EY's base case assumptions.
Q. And it is fair, is it not, Mr Druce, that it is not possible to replicate from the documents that evidence the exchanges between the Government and the wind farms requesting 2.0 ROCs, the methodology by which they got to their two-ROC requirement.
A. Sorry, you are referring to the State aid --
Q. No, I am referring to the communications between the Government and the wind farm developers in which they indicated 2.0 ROCs were required. You cannot, from those documents, replicate the methodology they used to get to their two-ROC requirement?

A. You mean the methodology used by the wind farm developers?
Q. Yes.
A. No. We have seen no level as to cost of energy calculations from the wind farm developers, no.
Q. Now, as we discussed yesterday, at DECC's request, each of those three wind farms did, in fact, provide DECC also with detailed cost information which is the cost information you have used for the purposes of providing your response to Question 1?
A. That is correct. Yes.
Q. You have undertaken your own analysis of that cost information. Yes?
A. Yes. Yes.
Q. When you were doing that, you have not sought to replicate the exercise that Ernst & Young undertook in relation to that cost information.
A. That is correct.
Q. Now, as part of that exercise, you have calculated levelised costs for each of the three wind farms based on the cost information provided to DECC; yes?
A. Yes. That is right.
Q. The developer data does not itself present a levelised cost calculation, does it?
A. That is correct.

Q. It also does not include all the assumptions you need to make in order to produce a levelised cost estimate. Is that right?

A. Correct. Yes.

Q. In particular, it does not include information as to the appropriate assumption in relation to cost of capital?

A. The spreadsheets that the wind farm developers provided do not contain cost of capital estimates, although there is some discussion of it in emails between developers, [redacted] or [redacted]

Q. It also does not include the developer's assumptions as to output, does it, that cost data?

A. That is correct, yes.

Q. Now, if we could turn to your fourth witness statement at paragraph 199 -- sorry -- fourth report, I do apologise -- paragraph 199, and, in fact, page 81, Table 6.3. {ROC-D/1/81}. Do you have that in front of you, Mr Druce?

A. Yes I do.

Q. This is the results of your calculations of the levelised cost of energy of each of these three wind farms, based on this data that they provided to DECC, plus assumptions you have made?

A. Yes.

Q. If we look at the fourth column headed "LCOE under Cartel", this is your calculation of what the levelised costs would have looked like in the actual. Is that right?
A. That is right.
Q. We can see that that gives levelised costs ranging between £201.4 to £226.3, depending on which wind farms we look at?
A. Yes.
Q. So there is a difference in levelised costs of £24.9 between the most expensive and least expensive of these three wind farms?
A. Yes.
Q. If one was seeking closely to match the level of subsidy provided to the costs of these three wind farms, the figures would suggest, would they not, that each wind farm needed a different level of ROCs?
A. Taking that alone, yes.
Q. As we discussed yesterday, your calculation is that 0.1 ROC equates to 4.4 megawatts of support; yes?
A. 0.1 ROCs equals 4. -- yes. Yes. That is right.
Q. Yes. So, if one was seeking to cover an additional levelised cost of £24.9 between the cheapest and the most expensive, that would suggest, would it not, that the most expensive of these would require at least half

a ROC more than the least expensive of support?

A. Taking these calculations alone, that is true, although there may be other differences between the projects that might not be fully accounted for in this table, of course, but taking those LCOEs as they are, I agree that could be inferred.

Q. Looking at this table, the next column, that represents, does it not, your calculation of the levelised costs for each of these wind farms in the counterfactual?

A. Yes.

Q. So after deducting the assumed overcharge of 26 per cent on all relevant products including installation costs?

A. Yes.

Q. Looking at the figures in that column, it is right, is it not, that in that scenario both [redacted] on your calculations still have a levelised cost of energy above the levelised cost of energy you calculated for London Array in the actual?

A. Yes. That is right.

Q. So on your calculations they would still have had a higher cost profile in the counterfactual than the profile which led London Array to ask for 2.0 ROCs in the actual.

A. Based on these calculations that can be inferred, yes.

Q. Now, of these three wind farms, [redacted] was the one with

the highest levelised cost in both the factual and the counterfactual.

A. Yes.

Q. It is also the wind farm with the lowest cost elevation on your calculations -- £5.49 compared to the average of £6.42.

A. Yes.

Q. [redacted] was the second-largest of these three wind farms, was it not?

A. I cannot remember the capacity figures off the top of my head but I believe that is right, yes.

Q. I can show you some documents if you would like?

A. I am happy to take it as read.

Q. And that would mean that it would be providing a significant percentage of the total renewable generating capacity it was anticipated that these three wind farms would deliver.

A. Yes, and, indeed, the Government repeatedly discusses the importance of these three projects.

Q. But [redacted] itself, just looking at [redacted] itself, was an important wind farm on your analysis for the purposes of the Government's aim of meetings renewables targets.

A. Yes.

Q. If we look at [redacted] together, they accounted, did they not, for about the same amount of additional

capacity as London Array?

A. Again, I have not -- I do not recall the capacity figures off the top of my head. I could check.

Q. Assume with me that is right for the moment --

A. Taking that as -- yes.

Q. -- that would mean that comparatively those two were as important as London Array for the purposes of the Government's aim of meeting its renewable targets in your view. Is that right?

A. Based on those assumptions, yes. It would seem so, although, again, I would say that the Government did repeatedly mention the importance of all three and with a particular focus on London Array, often.

Q. Now, Dr Moselle has performed his own calculations of the levelised costs of these three wind farms using a methodology which he believes more closely replicates the methodology Ernst & Young used. That is right, is it not?

A. Yes. That is right.

Q. If we could turn to Table 5 in Dr Moselle's fourth report at {ROC-D/9/33}? Do you have that, Mr Druce?

A. Page 33 of Dr Moselle's report, yes.

Q. Table 5?

A. I see. Yes. Sorry.

Q. On the right-hand side are your estimates in the actual

that we have just looked at, and then on the left-hand side are Dr Moselle's estimates in the actual which are, in each case, lower than yours --

A. Yes.

Q. -- but still with a wide range, so for the three wind farms we are focusing on, a range of £15.2 in terms of the levelised cost?

A. Yes.

Q. So that would suggest, would it not, that there is more than 0.25 ROCs of difference between the top and the bottom of these ranges in terms of the subsidy.

A. Yes. There appears to be a range between -- for London Array, [redacted] there seems -- yes. I think that is right, yes.

Q. Thank you.

Now, Dr Moselle's suggested cost elevation due to the cartel is 4.2 megawatts per hour, as you know, so if we deduct that from the actual figures here, for each of London Array, [redacted] we would still be in a position, would we not, Mr Druce, where London Array and [redacted] would have levelised costs of energy which were higher than Dr Moselle calculates for Lincs in the actual, if you take £4.2.

A. If we take £4.2 from London Array -- sorry -- from London Array --

Q. And [redacted].
A. -- and [redacted] yes.
Q. It is still going to produce a result that is higher than the levelised cost of energy Dr Moselle calculates for [redacted] in the actual.
A. Yes. That is right.
Q. So these calculations suggest that in the counterfactual London Array and [redacted] would have had cost profiles which were higher than the cost profiles that led [redacted] to ask for 2.0 ROCs in the actual.
A. I can certainly agree that -- with the arithmetic, but I think as we said earlier, we have not actually seen the arithmetic that led [redacted], rather, to ask for 2.0 ROCs.
Q. As you have not seen the arithmetics which led any of these wind farms to request and confirm that they needed 2.0 ROCs, the position is, Mr Druce, is it not, that the material is not available to enable you to express a view on what amount they would have requested in the counterfactual?
A. I think it is certainly true that we have not -- so we have not, as I said, seen the details of how those -- the other wind farms derived their request for 2.0 ROCs. I have inferred from the discussions that I have seen documented in the disclosure that the developers were

discussing with DESNZ what levels of support were needed to cover their costs and ensure their projects would be economic and those discussions are the evidence I rely on to draw my conclusion about -- that it is likely that -- or it appears from that evidence that the motivation underpinning those wind farms' request for 2.0 ROCs was motivated by their costs.

Q. But it is just speculation on your part, Mr Druce, is it not, what they would have asked for in the counterfactual because you do not have the material to enable you to understand the basis on which they requested two in the actual?

A. I certainly do not have the detailed calculations performed by the wind farms themselves, such as financial models or other calculations that they used to derive their request, no.

Q. Could we go to paragraph 52 of your fifth report which is in {ROC-D/2/31}? Do you see there you say that the Government calibrated its banding decision to ensure London Array, [redacted] would be commissioned; yes?

A. Yes.

Q. Can we be clear how you are suggesting that the Government calibrated its decision?

A. The documents that I have reviewed show a number of --

document a number of interactions between the developers of these wind farms and Government officials. We know that they were talking extensively during the 2010 banding review process about the level of support they need and some of the costs and technical characteristics of their projects. We know that the -- and we also know from those documents that the part of those discussions involved discussions on key input assumptions that would have determined what assumptions would be necessary -- what assumptions the wind farm developers were making about key parameters that were important value drivers for those projects like load factor or the cost of capital, and I am inferring from the body of documents that I have reviewed in the disclosed material that through those detailed engagements between Government officials and the developers there was an earnest effort by the Government officials to ensure that the level of support provided was necessary and sufficient to bring forward those projects which the Government saw as pivotal to meeting its renewable energy targets, so I think that is --

Q. Does it amount to this, Mr Druce, that you are inferring calibration because the Government was checking with the wind farm developers that the level of ROCs that it was proposing would suffice for the wind farms to go ahead?

A. It was certainly more than a cross-check after the fact, which -- that statement, to me, implies. I think -- I am certainly drawing inference from the documents, and I agree certainly with that, but I think that we can see it is not just a cross-check with the developers at the end of a process structured around the Ernst & Young report, but detailed engagement on important value drivers within the LCOE calculation, and I think that -- so I think to call it a cross-check at the end of a review process does not capture the extent of those interactions, as I have interpreted them from the disclosed documents.

Q. Those sensitivities and -- in relation to the LCOE calculation you have just been discussing were, of course, all in relation to the Ernst & Young centralised LCOE calculation; yes?

A. Yes. As I said earlier there is -- I have not seen any calculations performed by the Government of its own LCOE calculations, save for the one that appears in the documents surrounding the 2009 State aid clearance process.

Q. Can we look at paragraph 30 of the Joint Memorandum? You might need to go to the hard copy. Sorry, proposition 30, at page 53. {ROC-D-IC/11/53}. You see in the last paragraph of this you say:

"From my interpretation of the disclosed documents I consider it far more likely that the banding decision was ultimately determined by the Government seeking to set subsidy as close as practicable to the level necessary to cover the costs of the marginal wind farms. Do you see that?

A. Yes, I see that.

Q. So by "marginal wind farms" in that sentence you are intending to refer to London Array, [redacted] Is that right?

A. Yes. That is right.

Q. Now, are you assuming, for the purposes of expressing that conclusion, that there was some analysis undertaken by the Government by which it assessed what the levelised cost of energy of those wind farms were, so that it could analyse what level of subsidy was needed to cover them?

A. That is one way by which the Government could have made that assessment, but, of course, as I said, we have not actually seen a levelised cost of energy calculation that the Government actually performed. Another way it could have made that assessment would be to use discussions with wind farm developers on some of the important value drivers that we mentioned earlier to form a view of which of the Ernst & Young sensitivities

was most relevant to particular projects.

Q. My question was: what are you -- whether you are assuming.

A. I am characterising the -- or rather my assumption, if you want to use that term, is informed by the very extensive evidence in the disclosed documents of the Government seeking to ensure that the level of support would be necessary and sufficient for those wind farms to cover their costs. I have made no particular assumption about the mechanism by which they would have verified that the -- that that banding level was precise -- was correct in that way, but I -- from the disclosed documents I can -- and from the Ernst & Young report we can see that the Government was gathering information from developers about their characteristics and their costs, and from those -- from that information-gathering exercise it would have been perfectly possible for the Government to draw inference about what the costs of those wind farms might have been, based on the Ernst & Young study, but I accept that there is a degree of ambiguity about precisely how the Government went about that process, but we can certainly see that it went to great efforts to do so, and it is because of that ambiguity that I -- as I described yesterday -- just in my own calculations, took

the cost of those wind farms directly as a simpler and a more objective way of getting to that -- the essence of what I think was going on.

Q. You see, I suggest to you, Mr Druce, that if you were seeking to set the subsidy as close as practicable to the level necessary to cover the costs of your three wind farms, you would need to conduct a levelised cost calculation for those three wind farms to work out mathematically what level of subsidy just exceeded that.

A. Or you could -- that is one -- that is, indeed, one way in which one could do that, but you could also form a view on which of Ernst & Young's sensitivities were most relevant and appropriate to the wind farms in question.

Q. But without a levelised cost calculation in relation to the wind farms you would not know, would you, what the impact of the different assumptions that Ernst & Young were making would be on the wind farms' costs? You need at least to have done the calculation to be able to assess that.

A. Well, it can be -- rather than calculated it can be read from the Ernst & Young report. I mean, for example, as I -- there are documents in the disclosure -- well, for example, we talked yesterday about the OFTO regime. We can see documents in which the Government was taking a view that the OFTO regime would be value positive. The

Ernst & Young report, which documents the results of Ernst & Young's LCOE calculations, shows the value impact, or the impact on the LCOE of that particular assumption, and I believe that assumption reduces the LCOE by an amount in the order of £9 per megawatt hour, and that is evident from the Ernst & Young report, and the Government could reach that -- would have been aware of that -- without needing to perform its own LCOE calculations. It just needed to read what Ernst & Young was producing for it.

Q. We agreed yesterday that the Ernst & Young levelised cost estimate was one which actually you say is irrelevant to the Government's assessment because it includes three wind farms that are low cost which bring the average levelised cost right down, so without assessing the costs of these three more expensive wind farms, you would have no way of knowing, would you, Mr Druce, whether a £9 difference meant that the subsidy that you were providing would be sufficient?

A. I think it is true to say that -- well, I am not sure -- I am struggling a little bit to stitch the two parts of that sentence together.

Q. Let me try again. I do not want you not to understand the question.

A. Yes.

Q. You just, in the answer you gave to the Tribunal, referred to the fact that in the Ernst & Young report there was an analysis of what difference the OFTO regime could make in terms of the level of subsidy required, and you suggested that that is a £9 figure.

A. Yes.

Q. I understood you to be suggesting that the Government could, therefore, know that if it made that OFTO assumption, the levelised cost of these three more expensive wind farms would be sufficient with a particular banding level; yes? Is that what you were trying to suggest?

A. Yes. I mean --

Q. Dr Moselle can infer it.

A. That would not be enough by itself, of course, because by Dr Moselle's numbers the levelised cost of those wind farms were in the order of £180.

Q. Precisely. That is the point that I am trying to put to you, Mr Druce, that without having done the levelised cost analysis of these three specific wind farms, you would not be able to ascertain whether any of the sensitivities in Ernst & Young's report made a difference to ensure that for these three wind farms the level of subsidy would suffice.

A. Again, I think it is very clear from the Ernst & Young

work that some wind farms were more expensive than others, and it was clear to the Government that from the data before it, these wind farms were more expensive than the average because the Ernst & Young report shows that, and that information is reflected in mine and Dr Moselle's calculations, but I agree with you that I have not seen -- I have not -- I can certainly agree that I have not seen the Government calculate an LCOE, or Ernst & Young, for that matter, calculate an LCOE for those particular wind farms.

THE CHAIRMAN: Just so I am understanding, the answer to the question is not whether the Government did actually calculate an LCOE, but how it could have done what it did without calculating an LCOE. Have I got that right?

MS DAVIES: How it could have adopted the approach that Mr Druce says it adopted, of seeking to set the subsidy as close as practicable to the level of the cost necessary -- of these -- to cover the costs of these three wind farms without doing that calculation.

A. Well, so the calculations that I was sort of sketching out in my answer, I think, which effectively start from the 180 -- the £180, for example, that Dr Moselle calculates for those three wind farms and then makes adjustments to it based on different assumptions that you might make that would have differed from the Ernst &

Young base case assumptions would, indeed, have required you to start from the £180, so it would have required the Government to start from the position of having calculated a levelised cost of energy of £180. I agree I have seen no such calculation in the disclosed material, but the method of performing the calculation is -- would have been relatively straightforward, and as I mentioned earlier we have seen evidence of the Government performing levelised cost of energy calculations during the 2009 State aid clearance process which just preceded the start of the 2010 banding review at the end of 2008.

Q. Mr Druce, you keep mentioning that, but given there is no evidence in any of the materials that -- and you have agreed in the Joint Memorandum that there is no evidence that the Government performed its own LCOE calculation, the fact that they did it in the previous year in relation to a different exercise cannot be relevant, can it?

A. Well, it is -- I agree -- and I have said several times now I think that I agree there was no levelised cost of energy calculation performed by the Government that we can see in the disclosed material during the 2010 review process. As I said -- and Ms Davies is correct that that -- the LCOE calculation I am referring to which led

to the £140 per megawatt hour figure in her table yesterday, I think that dates from the last quarter of 2008. I forget the precise date.

Q. Can we agree this: you have not presented anywhere in your analysis the -- either your calculations of the levelised costs for these three wind farms or Dr Moselle's calculations for these three wind farms, adjusted by reference to any of the sensitivities in Ernst & Young's report?

A. No. That is correct.

Q. Now, what I do understand you to be saying is that you find some support for your position that it was the cost of these three wind farms that was determinative of the Government's decision-making from the existence of the £5 margin between the central Ernst & Young cost estimate and the central revenue estimate of £149. Is that right?

A. Yes, amongst other information I rely on, yes.

Q. But that additional allowance of £5 per megawatt hour was not sufficient, was it, to mean that on either your or Dr Moselle's calculations, that of the levelised costs of energies of these three wind farms would be exceeded by the subsidy?

A. You mean because of, for example, taking Dr Moselle's numbers, the £180 is --

Q. Exactly.
A. It certainly -- I can certainly agree that the £180 number is higher than the £149 per megawatt hour number that is cited as a central revenue estimate in the State aid document, but if -- I think if you were to adjust -- if one were to adjust the Dr Moselle's £180 per megawatt hour number by the impact -- the EY estimate of the OFTO regime and to take a load factor assumption towards the upper end of EY's range which, again, disclosed documents suggest the Government thought was realistic, you can get down to that -- you can get down to a number --
Q. We just agreed, Mr Druce, that you have not presented that calculation in your report?
A. Not in my reports, no, but it is a matter of simple arithmetic. If you -- one can perform those calculations from interpreting the EY report, because we know that the impact of the OFTO regime was £9, and the impact of assuming a high load factor would just be proportional, so the EY base case has a numbering of 38 per cent and the high end of the range of EY was 44 per cent, I think, so scaling --
Q. So, what you are trying to do now on the stand, is this right, Mr Druce, is to present some sliding scale of your levelised cost estimates to try and justify the

opinions you have given in your report?

A. They are not mine, they are Ernst & Young's and/or Dr Moselle's.

Q. No, but you are seeking to adjust, on the stand, if I understand it, the levelised costs estimates that you and Dr Moselle have produced by reference to information in the Ernst & Young report, not an analysis you have presented anywhere in your reports, but you are doing that to try and justify to the Tribunal your conclusions. Is that right?

A. Well, I was trying to answer Ms Davies' question about why the -- about how one might reconcile the difference between £180 and £149 which I think is an important question, because the £180 cost of the London -- apparent cost of those three projects is obviously higher than the revenue number that the Government thought that the wind farms would earn in the central case so I think it is an important question to ask, why the difference, and I was just trying to comment on that.

Q. Without the analysis having been done, Mr Druce, no one is in a position to verify whether what you are suggesting is right or not, and you yourself have not verified whether that is right or not because you have not done the analysis either, have you?

A. These are not my -- well, the £9 number is Ernst & Young's number, and the load factor is a proportion at scale.

Q. You have not produced the spreadsheet which would show what the outcome of making any of those adjustments is, have you?

A. I have not produced a spreadsheet that performs those calculations because they are -- well, I mean because -- in part because I was offering that in response to the question and also the calculation is extremely simple arithmetic. It was just 180 minus 9 and then scaling down by the difference in load factor.

Q. Yes, but to work out what the difference in load factor would be, you would need to actually use a spreadsheet to do that.

A. Well again, Ernst & Young performed load factor --

Q. Yes, but my simple --

THE CHAIRMAN: Can I just make sure I heard the end of that answer, please? Sorry, Ernst & Young?

A. The Ernst & Young report contains sensitivities showing the impact of how its LCOE calculations varied with important -- with differences in the assumptions on key value drivers, including the load factor and others, so if you wish to see the calculations showing how the LCOE result might vary upwards and downwards with changes in

key assumptions like the load factor, they can be read from the EY report.

MS DAVIES: That is not an exercise that you have presented in your report.

A. No --

Q. And it is not an exercise you have actually undertaken, is it, Mr Druce?

A. No, but I am commenting based on my familiarity with the Ernst & Young report.

Q. Could we move on to the proposition 64 of the Joint Memorandum which is -- you will have to look in the hard copy -- it is at D, tab 11, page 107.

A. Sorry, did you say proposition or page --

Q. Proposition 64 starts at page 106. I particularly wanted to ask you about the paragraph on page 107. {ROC-D-IC/11/107}. You say that this demonstrates that the Government must have relied on additional information beyond the ranges of cost and revenues presented in the State Aid Notification to set banding.

Can I just be clear, first of all, when you say "the Government must have relied on additional information", are you suggesting that the Government must have relied on something over and above the material in disclosure or are you referring to something in the disclosure?

A. I am saying that it is a possibility that the Government

relied on information beyond that which is in the disclosure. I am saying -- but I cannot be sure of that, obviously, because I have not seen it -- but I am also saying -- but it is also possible, as we have just been discussing, that it was making interpretation -- its own interpretation of information that was already in front of it.

Q. Again, that is speculation, is it not, Mr Druce, because you have not seen anything from the DESNZ disclosure suggesting the Government did anything of that sort in relation to the three key wind farms?

A. I am -- well, I would suggest "speculating" is the wrong term to use, but I am inferring from the documents that discuss the lengths that the Government went to to ensure that its banding decision would be necessary and sufficient to cover the costs of these projects, that it was performing -- it was holding discussions or performing analysis or drawing its own inference from the materials that we have seen and been discussing, that led it to the conclusion that it reached, that a banding of 2.0 ROCs was, indeed, necessary and sufficient, and the wind farms -- the three benchmark wind farms I have identified from -- would be supported by that decision, and that they would not be overly compensated as a result.

Q. Could we look at proposition 55 of the Joint Memorandum at page 93? {ROC-D-IC/11/93}. The proposition was:

"There is no evidence on the record that the Government considered an LCOE of over 200 £/MWh ..." as calculated by you. In the paragraph that follows you say:

"I do not find any clear documentary evidence of the Government considering an LCOE estimate of over 200".

Do you see that?

A. Yes.

Q. The reality is there is no such documentary evidence, is there, Mr Druce?

A. I agree that there is no number. I have seen no LCOE number mentioned by the Government above £200 pounds per megawatt hour in the disclosed materials.

Q. Right. Could we then move to the counterfactual and can we start with your calculation of a cost elevation of 6.4 megawatts per hour which, as we have discussed, you got to by using the cost data provided by the three key wind farms on your analysis to DECC, and making assumptions in relation to the revenue side; yes?

A. Yes. That is right.

Q. What you -- if we go to your fifth report, paragraph 44, which is in {ROC-D/2/27} --

A. Sorry, while we turn to that can I just slightly correct

what I just said? I think you said, "making assumptions in relation to the revenue side". I do not think that is quite right because the £6.4 does not require assumptions on revenue, it is just cost assumptions, but I am making a number of assumptions to get there.

Q. Well, precisely, because what you have done is compared the levelised cost that you calculate in the actual with the levelised cost that you would calculate in the counterfactual, assuming a 26 per cent overcharge on everything. So, to get to that figure you have necessarily had to use both the cost data that the wind farm developers provided to DECC, as well as assumptions that you are making for the purposes of the levelised cost calculations as to revenue; yes?

A. I was comfortable with the statement until "as to revenue". These are levelised cost calculations. The Revenue does not come into it, but I agree that I have taken LCOEs in the factual and counterfactual case where the difference is the 26 per cent overcharge and I have made assumptions to -- in the process of performing those LCOE calculations.

Q. You have made assumptions -- sorry, it is my shorthand and I do apologise --

A. That is fine.

Q. -- you have made assumptions as to things such as the

output --

A. Yes.

Q. -- I am shorthand for revenue because that is what generates the revenue from the wind farms, but you have had to make assumptions both as to cost of capital and output for each of the wind farms.

A. Yes.

Q. Now, for the purposes of your calculation of the £6.4 megawatts per hour you have used simple averages rather than weighted averages for the three wind farms. That is right, is it not?

A. Yes.

Q. If we go back to Table 6.3 of your fourth report at {ROC-D/1/81}, that means that the £210.3 figure is just a simple average of the three above --

A. Yes.

Q. -- and so the £216.7 figure, and those are the two figures you are comparing to get to your cost elevation of £6.42.

A. Yes.

Q. Now, if we look at this table, the cheapest of the three wind farms, on your calculations, was London Array; yes --

A. Yes.

Q. -- which was also a wind farm that was contemplated to

contribute the highest amount of additional capacity. Do you recall?

A. Yes.

Q. The cost elevation that you calculate for the three individual wind farms differs, does it not, depending on which wind farm we are looking at --

A. Yes.

Q. -- ranging from the -- that is what the final column is showing us. It ranges from £5.49 to £6.9 for London Array?

A. Yes.

Q. So if you weighted the average of your cost elevation by reference to the generating capacity, so producing a megawatt weighted average, your cost elevation figure would be reduced, would it not?

A. Sorry, if a greater weight were placed on London Array?

Q. Yes.

A. If a greater weight were placed on London Array the average would increase, not decrease.

Q. Sorry, yes, you are right, the wrong way round, but on [redacted] it would be the opposite way round, would it?

A. So -- again, I do not have the megawatt capacity figures off the top of my head -- but if you place -- if one placed a greater weight on [redacted] the £6.42 result would fall, and if one placed a higher weight on links

or London Array the £6.42 average would increase.

Q. You have not looked at that, have you?

A. No.

Q. Whereas Ernst & Young produced a megawatt weighted average, did they not?

A. Their £3.2 million per megawatt CAPEX figure was a weighted -- a capacity-weighted average of six projects, that is true.

Q. Now, the next step in your analysis is to deduct -- in your reports -- I am going to come to what you have done in the Joint Memorandum, I am just focusing on the analysis in the reports first -- the next step in your analysis was to deduct this cost elevation that you had calculated from the Ernst & Young central LCOE estimate; yes?

A. Yes.

Q. And that got you to a figure of 137.6 megawatts per hour --

A. Yes.

Q. -- which, if we could look at paragraph 42 of your fourth report on page {ROC-D/1/19}, is what you described in your fourth report as the counterfactual cost estimate for offshore wind farms; yes?

A. Yes. So, just by deducting £6.4 from £144 that is what I obtained, yes.

Q. Can we agree this, Mr Druce, that in the counterfactual it is very unlikely that Ernst & Young would have produced a levelised cost estimate that equated to your counterfactual cost estimate in this paragraph?

A. Yes, I think this goes to the point I make in proposition 58 of the Joint Expert Memorandum where I -- in response to comments made by the other experts in their reports. I appreciated inconsistency between applying the £6.4 to the £144 because they were clearly derived through different methods, and I -- you know -- in response to those arguments made by the other experts I concluded in that proposition that there was an inconsistency.

Q. Come back to my question. Can we agree that in the counterfactual it is very unlikely that Ernst & Young would have produced a levelised cost estimate that equated to your counterfactual cost estimate in this paragraph?

A. Yes, for the reasons I was just giving, because they were performing -- the £6.4 was derived using a different method from their £144.

Q. Yes. Now -- and that is the point that you belatedly recognised in the Joint Memorandum, if we go to the Joint Memorandum proposition 58 which you were just referring to at page 99. {ROC-D-IC/11/99} where, in the

middle of the page you recognised that your estimated cost elevation of £6.4 implies a higher levelised cost than the £144 produced by Ernst & Young, so you then, in the Joint Memorandum, adopt a different approach, don't you, to calculating the cost elevation?

A. Yes. So, I am scaling down the £6.4 to be more consistent with the £144.

Q. Yes, so what you -- and just to make sure we're all clear what you have done, you have worked out what percentage of the overall levelised cost of your three wind farms -- £6.4 -- comprises. The answer is 3 per cent, and then you scale down Ernst & Young's central levelised cost estimate by 3 per cent.

A. Yes.

Q. That gets you to a figure of 139.7 megawatts per hour. Is that right?

A. If one subtracts that from the £144 that sounds right, yes.

Q. Yes. Now, can we again, agree that it is very unlikely that this is an exercise that Ernst & Young would have been conducting in the counterfactual? Because they would, instead, simply have been using their model in relation to the six wind farms to calculate a levelised cost of energy.

A. Yes.

Q. Could we look at paragraph 56 of the Joint Memorandum at page 95? Proposition 56? {ROC-D-IC/11/95}. You there were explaining that on the basis of the assumptions you've outlined in proposition 54 you obtain a cost estimate elevation of £6.42, so that is the exercise that you conducted in your reports which you -- we have just been discussing.

A. Yes.

Q. And then you say:

"Alternatively, I obtain a cost elevation estimate of 3.40 £/MWh excluding installation costs"; yes?

A. Yes.

Q. That is, again, based on the same exercise as got you to £6.4, but excluding installation costs, is it not?

A. Yes. That is right.

Q. So if we -- I do not think you have recalculated the cost elevation excluding installation costs using the revised methodology you set out in proposition 58, have you --?

A. No, I have not.

Q. -- but we can agree it would be lower than 3.4.

A. Lower than 3.4, yes. Yes. It would be -- I think it could probably be scaled proportionately.

Q. Now, coming back to the analysis in your report, in relation to Question 3, so minimum cost elevation, the

first scenario that you presented -- can I just make sure I have understood this correctly -- you -- the methodology you adopted was having deducted your centralised -- sorry -- your cost elevation of £6.4 from the Ernst & Young central LCOE estimate, you then compared the revenue that would be needed to exceed that £137.6 figure.

A. Sorry, the question -- the ROC issue Question 3 relates to the minimum cost elevation. It does not --

Q. I know. I am trying to make sure -- I am trying to -- I am looking at scenario one.

A. Yes.

Q. Let us go to paragraph -- it is in paragraph 42 that we were looking at -- of your report at {ROC-D/1/19}.

The first stage in your answer in relation to scenario one is to get to your counterfactual cost estimate of 137.6; yes?

A. Yes, sorry, I was a little thrown by your reference to ROC issue Question 3, because my answers to ROC issue Question 3 do not depend on the 6.4 at all. I was just trying to perhaps draw a link in my mind that was not there, but -- in your question -- so apologies if that is the case, Ms Davies -- but I also provide two scenarios on -- well, I also provide different calculations in relation to Question 2. Perhaps that

was --

Q. Right. Sorry, I am sure it is my fault, Mr Druce. Let us start again.

Let us go back to paragraph 42, and the first scenario that you are looking at in your report which you look at both for the purposes of Question 2 and Question 3?

A. Yes.

Q. So I apologise if I threw you by just referring to Question 3.

So, for the purpose of Question 2 and Question 3, the first scenario you address is one where the banding levels would have remained at 0.25 ROCs; yes?

A. Yes.

Q. But the counterfactual cost estimate would have been £137.6.

A. Yes.

Q. Yes, and what you are saying in paragraph 42 is: because £137.6 is a little below, but extremely close to the revenue required at 1.75 ROCs, the Government could not have stuck with two; yes?

A. Yes.

Q. And, in fact, you therefore conclude in relation to Question 2 that the banding, on your first scenario, would have reduced to 1.75; yes?

A. Yes.
Q. Now, if we just take the calculation leading to the banding being reduced to 1.75 ROCs, and just focus on that for a moment, that depends on your cost elevation of £6.4, does it not?
A. Yes. So, the calculations in this paragraph all depend on that. Accepting the inconsistency that I had noted in proposition 58 of the Joint Expert Memorandum, it would -- I now agree it would be more appropriate to -- if starting from the £144 central point -- to subtract a number in the order of £4. -- whatever it was -- £4.3, which would get you down to £139.7, so my -- if one were to perform that exercise, the cost is still very materially closer to the level of revenue associated with 1.75 ROCs per megawatt hour than 2, but it is obviously not as low as it would have been with a £6.4 calculation.
Q. So what it would mean is that a revenue of £138 would be below the central levelised cost estimate of £139.7; yes?
A. Yes. That is right.
Q. So you could only get to a banding of 1.75 ROCs if you were adopting an approach of rounding down to the closest?
A. Or rounding to the closest. Yes.

Q. And that is not at all likely, is it, Mr Druce, in the counterfactual?
A. I think in the counterfactual it is not likely at all that the Government was simply blindly rounding to the nearest quarter ROC. I think there was far too much money at stake, frankly, for the consumer to be taking such a crude approach.
Q. We will come to the rounding practice --
A. Okay.
Q. -- but it is not at all likely in the counterfactual that the Government would have set a ROC banding level that was below the centralised cost estimate, is it?
A. Unless it had other evidence that the -- suggested that the level of revenue provided was necessary and sufficient to cover the costs of the wind farms it was interested in, no, but I think I agree and I say in my report that the second scenario is more likely, in which the Government was seeking to set a level of revenue that would cover the costs of the wind farms that it was interested in, so revenue higher than costs, but to do so with as narrow a margin as was practicable, so that would be the second scenario.
Q. The second scenario. We will come to the second scenario. Just dealing with the first scenario, even on the calculations that you had in paragraph 42 of your

fourth report, the difference between £137.6 and £138 did not allow, did it, any material buffer or margin for uncertainty in relation to costs or a desire to ensure marginal wind farms came on stream.

A. Well, it would have been -- even on the numbers presented here, that would have been an extremely thin margin, but this scenario is predicated on the idea that the Government was constrained to quarter ROC increments. It was rounding -- and the observation, really, that in this state of the world where costs were extremely close to the level of revenue generated by 1.75, the amount of overcompensation that would have implied 2.0 ROCs would have been untenable.

Q. Look at paragraph 217 of your fourth report at page 89. You see your conclusion in relation to this was that the evidence disclosed by DESNZ suggests that due to the practice of rounding to the nearest 0.25, a cost elevation of £6.4 megawatts per hour would have reduced wind banding to 1.75 ROCs in 2010. Do you see that?

A. Under that first scenario, yes.

Q. Yes. You are not suggesting there that that is unlikely because it would not allow a sufficient margin and it would not address the costs of the marginal wind farms, are you?

A. I think I come on later in the document to -- and I

certainly have since -- that the second scenario is more likely.

Q. Just look at what you say in paragraph 217 in relation to the practice of rounding to the nearest 0.25 ROCs. You are not indicating, in your report, are you, that you thought that was unlikely, whereas your evidence is that is unlikely?

A. My evidence certainly is that this is unlikely, but this whole discussion is -- in my report -- is clearly predicated on an assumption of a crude rounding practice. I am saying -- albeit not within this paragraph as such -- I say somewhat above in the document, I think, that if the Government was rounding to the nearest quarter ROC banding requirement, then this is what would have happened, and the reason I felt that that was an informative thing to do was because there are -- there were statements in the State aid -- in the discussions that the Government had with the European Commission in the context of State aid clearance that talk about this choice between 1.75 and 2, and how the level of cost was in between the two, and how it had picked the level of 2 because costs were only marginally below revenues, whereas if they had picked 1.75, costs would have been some way above revenues, so it is possible to infer from that statement in the

Government's discussions with the Commission that it was following a rounding practice, so I thought that this was an informative scenario to present.

Q. Even though you do not think it was likely?

A. No, I have said very clearly I think that -- I think an alternative scenario where the Government was trying to set revenues above but as close as practicable to costs is far more realistic and consistent with the disclosed documents.

Q. Did you not think, Mr Druce, that in presenting your conclusion in paragraph 217 which is your first conclusion, if you were seeking to be as helpful as possible to the Tribunal it would have been more sensible to explain that?

A. I go on to explain --

Q. We are going to come on to what you then explained, but I am just focusing on paragraph 217 where you present a bald conclusion?

A. But it is not the final conclusion in my report, but the -- I am trying to be helpful by presenting two different ways of looking at the problem, and then ultimately I draw conclusions as to which of those -- as to my overall answer.

MS DAVIES: Is that a convenient moment?

THE CHAIRMAN: If the answer is finished, yes.

A. Yes, I apologise if that implies a degree of certainty and an interim conclusion that appears part-way through the document but that was certainly not my intention.

MS DAVIES: Thank you.

THE CHAIRMAN: Let us come back a bit after quarter to by that clock please, thank you.

(11.41 am)

(A break was taken)

(11.51 am)

MS DAVIES: Mr Druce, whilst we are still on ROC banding increments of 0.25, I do now want to move to your first answer to Question 3, because that also assumes, does it not, the Government continuing to adopt a practice of rounding to the nearest 0.25 ROCs?

A. Yes.

Q. Yes. If we could look at paragraph 44 of your fourth report on page {ROC-D/1/21}? Just so we are all clear what answer you are giving to this before I ask you some questions about it, you get to the conclusion that had cost estimates at the time been only £1 megawatt per hour lower, the Government would have found the cost to be closer to the estimated ROC revenue at 1.75 ROCs, and therefore the band -- sorry -- and that is the basis on which you calculate your minimum cost elevation of £1.

A. £1 per megawatt hour, yes.

Q. In other words, it is the amount in your view that is required as a matter of maths to take the revenue closer to the 1.75 ROC banding level than the 2 ROC banding level.

A. Mathematically that is how it is calculated, yes.

Q. Just so we are all clear what that means, it is that you are suggesting, for the purposes of your Question 3 first answer, that if the central levelised cost estimate was £143 per megawatt rather than £144 per megawatt in the actual, adopting a policy of rounding to the nearest 1.75 -- sorry -- the revenue for the nearest 0.25 banding increment -- would have led to the banding increment being reduced to 1.75 --

A. Yes. That is what I am saying, yes.

Q. -- for the purposes of this answer.

A. Yes.

Q. So, this answer, therefore, postulates, does it not, a policy of rounding down to the nearest banding increment, rather than ensuring that the revenues exceed the levelised cost estimate?

A. It posits the idea of rounding, not rounding down as such. Rounding to the nearest quarter. If you -- but once you reduce the £144 by a pound or more, at that point you would be rounding to the nearest quarter ROC would imply rounding to 1.75.

Q. But, in practice, that means rounding down to get to your £1 figure because you have got a revenue figure, by definition, at £143, that is above the -- sorry -- you've a levelised cost figure at £143 that is above the anticipated revenue of £138.

A. In this case, that is what that would imply, yes. It would.

Q. So the centralised levelised cost estimate would have been £5 higher than the revenue anticipated by a ROC level of 1.75?

A. Yes. That is right.

Q. It is not at all likely, in the counterfactual, is it, Mr Druce, that the Government would have adopted that approach?

A. Yes. Again, as I said before the break, the -- this first scenario is intending to reflect that sentence in the UK Government's exchange with the Commission where it talked about the level of revenue associated with 2.0 ROCs being marginally above and the revenue associated with 1.75 being some way below, and justifying its decision to select 2, apparently, on the basis that the £144 is closer to £149 than it is to £138, and I do not think that is a fair reflection of what would have happened in a counterfactual. I think this scenario is a very -- it just takes a simple reading of what the

Government said in that exchange with the Commission, and that is it. It is just rounding beyond that.

Q. Well, we agreed yesterday that if you are looking at an average levelised cost estimate for wind farms, to ensure full cost recovery you need to set the banding level such that it produces revenues above that levelised cost estimate. You agreed with that proposition.

A. Yes, which is why I think the other scenario is more realistic.

Q. Yes. So, this scenario was never realistic, Mr Druce, was it? It was never realistic that the Government would be reducing the banding to £5 per megawatt per hour below the central levelised cost estimate.

A. I think that if one takes at face value the sentence written by the Government in its exchange with the Commission, this is what that implies, but --

Q. Just stop there.

A. -- but I -- but that is -- and that is the reason I presented this scenario, but I agree it is -- the other scenario is more realistic, and that is what I have -- and I believe I have said that very clearly.

Q. The sentence in the communication with the Commission that you are referring to in that answer, that is the one in response to the Q&A, is it, where the Government

explain --

A. I think that is right, yes. I don't --

Q. Do you want to just look at that? Just give me a second to find it. {ROC-E/40/5}. Is it the second sentence in the second paragraph in response to paragraph 11:

[redacted]

A. Sorry, I think we have got the wrong document.

Q. {ROC-E/140/5}. I apologise. I said 40.

Do you now have the answer to Question 11 in the [redacted]

A. Yes. I see the first part of it. Just scroll down a little if possible?

Q. Sorry, Mr Druce, I could not hear that.

A. Yes, it needed to scroll, sorry. Yes. I see it now, thank you.

Q. The second sentence was the one I was referring to?

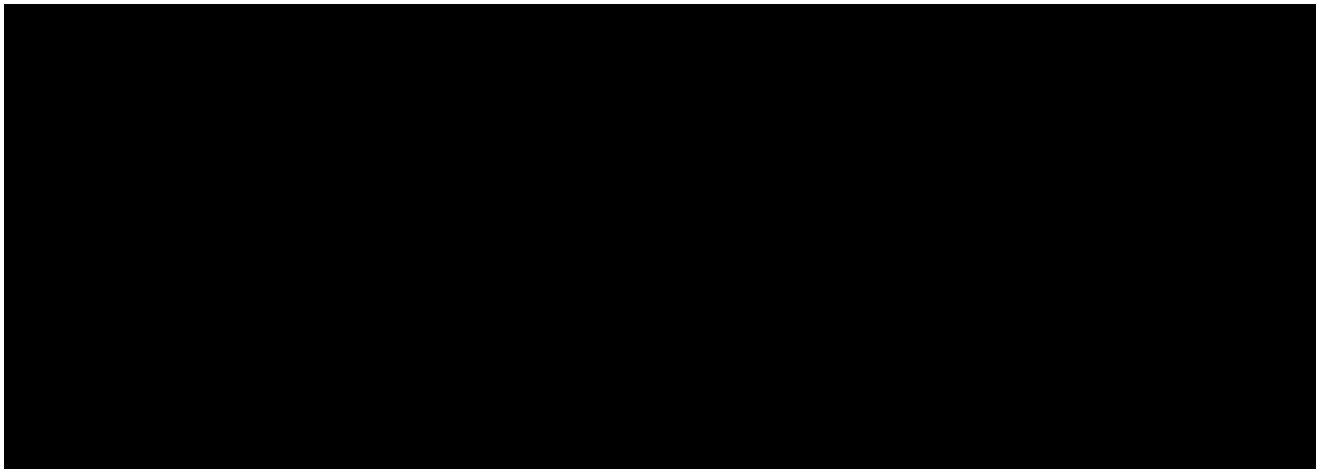
A. That is the one.

Q. That is the one that you are suggesting -- sorry -- that you relied on for the purposes of your first answer?

A. Yes.

[redacted]

Q. In the same answer the Government go on to say:



All of those factors point against rounding down, do they not, Mr Druce?

A. I think those factors point to my second scenario being more realistic.

Q. If we go back to your fourth report {ROC-D/1/21}, look at paragraph 45.

What you said there was:

"I therefore conclude that a reduction in offshore wind development costs by as little as £1 would -- assuming a rounding practice to the nearest 0.25 ROCs and on the balance of probabilities -- have led to a different ROC banding decision in the counterfactual".

You see that? So you are expressing a positive view that it is more likely than not, applying a rounding practice of 0.25, that £1 would have made the difference; yes?

A. Yes, and --

Q. That is not actually your view, is it, Mr Druce?

A. Which I think is very clear from the next page.

Q. Where do you explain in paragraph 45 when you conclude on the balance of probabilities that applying a rounding practice to the nearest 2.5 and a cost -- minimum cost elevation of £1 would have led to a different ROC banding decision? Where do you explain in paragraph 45 that is not actually your view, and you do not think that is likely?

A. So I believe that paragraph 45 is a conclusion within the context of scenario one, and I make clear that not only did I consider an alternative scenario that I thought it was more likely, so if the conclusion -- or if the drafting of paragraph 45 implies an excessive degree of confidence in that -- in this scenario, I

apologise for the ambiguity, but I can clarify now that I intended then, as now, that -- to advise that my opinion is that the second scenario is the more likely one, and that scenario one was presented to reflect the outcome of a -- that you would get if you assumed a practice of simply rounding costs to the nearest quarter ROC revenue number. That is -- so I certainly had no intention to confuse through the phrasing of that paragraph, so if it is unclear I apologise and I am happy to clarify if needed.

Q. Could you turn on to paragraph 228 on page 94 of your fourth report? Let us start with 227. You therefore conclude that a reduction in offshore wind development costs by as little as £1 would, on the balance of probabilities, have led the Government to change its ROC banding decision. {ROC-D/1/94}. That is not actually your view either, is it, Mr Druce?

A. Again, this is a conclusion of the analysis that is all predicated on scenario one. My view is that scenario two is more realistic.

Q. So in answer to my question, paragraph 227 is not your view, is it, Mr Druce?

A. That is my view in a world where scenario one applies, but no more than that.

Q. And in a scenario where rounding down applies, which you

do not consider to be likely.

A. As I said, scenario one implies crude rounding up or down to the nearest quarter ROC. I consider it far more likely that the Government was following something -- a rule closer to what is reflected in scenario two.

Q. Look at paragraph 228. You then say:

"Therefore, this £1 constitutes my estimate of minimised cost on a levelised cost basis, under the third of the Tribunal's ROC issue questions"?

A. Yes, I mean --

Q. It does not, does it, Mr Druce?

A. The same answer applies. It represents my estimate within the confines of scenario one, but scenario one only. The -- the report goes on, I think, on the next -- the following page -- to explain that.

Q. I am going to come to scenario two. In fact let us come to that now, shall we? Oh sorry, no, before we do that, can I just clarify this final point in relation to ROC banding increments of 0.25? So we are still in your scenario where the Government was continuing to follow its practice of using banding increments of 0.25. Can we just look at an analysis of that on the assumption that the Government's approach was one of seeking to ensure that the revenues matched or exceeded the central Ernst & Young levelised cost estimate? Yes? If we were

in that scenario, so not a scenario of rounding down but a scenario of making sure you match or exceed, it would follow, would it not, that the minimum cost elevation would have to be at least £6 per megawatt hour?

A. And your £6 is the difference between £144 and £138?

Q. Yes.

A. Yes. So, if you were constrained to quarter ROC increments and there was a policy of match and exceed and the basis of the -- that the Government's decision was to take the Ernst & Young £144 mechanically, then that is -- that can be inferred from --

Q. And even that approach would not leave any buffer for uncertainty or marginal wind farms which you have explained in reality the Government would have been seeking to ensure.

A. Well, yes, but I think the concept of a buffer really only makes sense in the scenario two world, because in a world where you are applying a rounding practice of that form, you are starting to abstract from the idea of buffers between revenues and costs. You are --

Q. Well, let us put it a different way. If the cost elevation took the levelised cost estimate down to £138, that would match the revenue at 1.75 ROCs but it would not leave any margin for uncertainty or a margin for encouraging your marginal wind farms; yes?

A. Yes.
Q. If you were going to allow, in that calculation, the same or similar margin to the Government -- to the margin that the Government actually allowed in the actual, the minimum cost elevation would rise to something like around £11, would it not?
A. So I think what Ms Davies is suggesting is that a rule in which the Government is constrained to quarter ROC increments, it would have -- it can only round-up, and it can only round-up -- and it must, at all times -- must still leave a buffer of that order, and the starting point was the Ernst & Young number taken as read. I suppose that must follow.
Q. It is not about constraining, it is about replicating what the Government was doing in the actual, in the counterfactual, assuming it continued to apply a banding practice of 0.25 increments, but I think we are agreed that if you assume that that is what the Government would have done, you assume it would have ensured the revenues were higher than the centralised cost estimate and you assume it would have been allowing a buffer of a similar level, the minimum cost elevation becomes around £11.
A. That is a -- that conclusion is aligned with the mechanics that Ms Davies describes, but I think that, as

you know, my position is that the Government's approach was -- there was more to it than that. It was not just taking numbers -- taking those numbers and rounding, or -- it was -- the core of what I think the Government was trying to do was to ensure that it was covering the costs of particular wind farms with as little particular margin as it could practically allow within the RO mechanism.

THE CHAIRMAN: Can I just make sure I understood your use of the word "constrained" there? I think what Ms Davies was putting to you was a world in which the Government is operating in units of a quarter of a ROC.

A. Yes.

THE CHAIRMAN: And I think you said, but tell me if I have misunderstood, you said, well, in that world the Government is operating in that, and is rounding down, as Ms Davies put it, it has given up on the concept of a buffer, because if you round down then essentially it is negative, so when you talk about constraining, are you saying that talk about a buffer only operates if the Government is operating in quarter ROC units, but wants, at all times, to keep a positive buffer. I just did not quite understand what you were saying about "constrain".

A. Yes, so the scenario that Ms Davies was indicating or describing where the levelised cost of energy has fallen

by something in the order of £11, or say it is not quite at that level, say it is slightly below £11 such that the rule of picking the highest -- the next quarter up with a buffer would not yet quite apply -- a rounding down of -- or a cost reduction in the order of, say, £10 rather than £11 I think would have resulted in an implausibly large degree of extra excess remuneration that I do not think would have been palatable, considering that my reading of the wider set of documents and the Government's -- the efforts that the Government was making to calibrate subsidy levels that were necessary and sufficient to cover the costs of key wind farms, but in that -- within the confines of a mechanical exercise that assumes that is how -- that the Government was, indeed, following such a mechanical exercise I am happy to agree that this is -- to his mathematics -- but I just do not think that if costs had fallen by an amount of that order it would have been credible to assume that the Government would not have taken that money back for the benefit of consumers.

MS DAVIES: Can we move to your scenario two? Can we start at paragraph 218 of your fourth report which is at {ROC-D/1/89}? Do you see there what you say is you consider an alternative scenario to allow for the possibility that the Government might have adopted a

different rounding practice had it been presented with different cost estimates; yes?

A. I see that, yes.

Q. That is where you first, in the body of your report, postulate the idea that rather than using banding increments of 0.25 ROCs the Government would have used more precise banding increments of 0.1 ROCs; yes?

A. Yes. This is the basis for this second scenario, yes.

Q. Your reasoning, have I understood this correctly, is that in -- which is what you are explaining in paragraph 218, second sentence -- in this alternative scenario the Government would have been seeking to award a level of ROCs that resulted in a similar margin to the margin that you have calculated in the actual; yes?

A. Yes. The £5. Yes.

Q. Then if we go to paragraph 219(e) at page {ROC-D/1/90}, your conclusion at this stage was that if the Government considered rounding down to the nearest 0.1 and sought to preserve a margin, that that approach would most likely have resulted in the Government choosing a level of ROC banding of 1.8; yes?

A. Yes. That is right, yes.

Q. You reject in this paragraph a banding level of 1.9 because it would have led to a slightly higher margin than in the actual of 5.1 per cent compared to 3.5?

A. Yes. Because this is the analysis in Table 6.4, 6.5 of my --

Q. Yes. If you want to have that in front of you it is at the next page 91 --

A. I recall. It is fine.

Q. -- whereas your banding of 1.8 ROCs would have, in fact, reduced the margin {ROC-D/1/91} to 1.5 per cent, would it not?

A. Yes. So the comparison between Table 6.4 and 6.5 shows the -- how the margin would have changed at different levels of banding, having reduced the factual LCOEs shown in column 3 of Table 6.4 by £6.5 per megawatt hour, and the final two columns show how that margin would have changed.

Q. And in paragraph 219(f) at the end, you concluded, therefore, that it was more probable that the Government would have set the banding at 1.8 than 1.9; yes?

A. Yes.

Q. Now, that approach assumes, does it not, that the Government, in the counterfactual, would have been seeking to use the banding levels to allow the minimum margin it could above the base case levelised cost estimate?

A. Sorry, could we scroll down slightly so I can see Table 6.5?

Yes. So, we see in the factual that there is a margin of £5 at 2.0 ROCs, and when we move to Table 6.5, having subtracted £6.4, we see that a banding of 1.9 gives a margin of £7, and a banding of 1.8 gives a margin of £2.6, so it is -- there is obviously -- it becomes -- it is obviously not clear-cut from that which of those two scenarios would have applied in a world where the Government is seeking to maintain a similar margin, because it might have accepted a slightly higher one, or it might have accepted a slightly lower one, so I think I note in the report that both 1.8 and 1.9 are possibilities, based on this comparison, but I do suggest, I think, as Ms Davies suggested, that the Government would have rounded up to the nearest 0.1 increment above its estimate of cost in this world, and that would have implied a margin of £2.6, based on this comparison.

Q. Mr Druce, I think you are looking at the wrong figures in Table 6.4. Table 6.5 is the counterfactual?

A. Yes.

Q. 1.8, which you were expressing, was the --

A. The banding.

Q. -- in your report, the more probable answer?

A. Yes.

Q. Gives a margin of 1.9 per cent.

A. Yes. Sorry, I was talking in monetary terms as opposed to --

Q. Right. Okay.

A. -- percentage terms. Sorry if that was confusing.

Q. Just looking at your figures in Table 6.5, the margin of £3.5, roughly, in the actual is actually pretty much halfway down, is it not, the 1.9 per cent and the 5.1 per cent that you assume in the counterfactual, using your £6.4 cost elevation?

A. Yes.

Q. Yes?

A. Pretty much, yes.

Q. Pretty much. It is certainly -- on this scenario, and I am going to come up -- come to some of the problems with this scenario -- it is certainly possible, is it not, that even on this scenario, I think you have agreed the Government could have decided to go a bit higher to 5.1 and not reduce to 1.9.

A. That is possible, yes.

Q. And, in fact, it is more probable, is it not, that the Government would have done that, if it had in mind the factors that you have been emphasising, which is the need to provide a buffer for uncertainty and to encourage the marginal wind farms to come onstream?

A. Not necessarily. Those are factors I have mentioned,

but I have also mentioned the pressure that the Government faced, and indeed its own desire to minimise the costs borne by the consumer as a result of this subsidy scheme.

Q. I suggest that there was not a -- sorry, your opinion in paragraph 219(f) that it was more probable that the Government would have set the banding at 1.8 {ROC-D/1/91} than 1.9 does not have a proper basis.

A. The basis for it is an assumption that in this world the Government was seeking to round-up to the nearest 0.1 ROCs, and that, as I said, say, in the first sentence of subparagraph (f) here, it assumes that the Government would have prioritised the avoidance of over-compensating renewable generators and the desire to keep costs low for the consumer.

Q. What that means, Mr Druce, is just looking on these calculations, the most that you can actually properly say is that the Government would have got to 1.8 or 1.9. You cannot -- you do not have a basis for saying it is more probable it is 1.9 than 1.8, do you?

A. I think that it is hard to definitively conclude one way or the other which of those two outcomes would have arisen. I have formed a view that the Government would have adopted a practice of rounding-up to the nearest 0.1 ROCs, but I accept that if the Government felt that

a larger buffer was needed, for example to -- if it felt that the buffer of £5 that we see in the counterfactual was a minimum amount that was required, then the scenario of 1.9 might apply, or the outcome of 1.9 might apply instead.

Q. Now, all of this analysis in Table 6.5 assumes, does it not, your cost elevation figure in your reports of £6.4 megawatts per hour?

A. Yes.

Q. If you instead use the alternative cost elevation of £4.3 megawatts per hour that you have set out in the Joint Memorandum, you would be comparing a base case levelised cost of £139.7 to the estimated levelised revenues at 1.8 ROCs of £140.2 that we can see in your table.

A. Yes. So, the inconsistency that we discussed earlier, that I explained earlier that I cover in proposition 58 of the expert memorandum, would affect the numbers in Table 6.5, yes. So, the third column of Table 6.5 subtracts £6.4 from £144. I agree it would be more consistent with subtract a lower number of £4.3, I think it was, and that would have consequent impacts for the numbers in columns 4 and 5 of Table 6.5. I think if you were to make those adjustments you can see that the monetary difference in the 1.9 row of Table 6.5 would

fall to an amount very close to slightly above £5, so addressing that inconsistency would suggest a banding level of 1.9 would start to look much more realistic in that -- because you would not face that choice any more between a number slightly above £5 and a number slightly below £5.

Q. I think we can agree, if you use the revised cost estimate of 4.3 megawatts per hour in -- that you have calculated in the Joint Memorandum, adopting the approach you are adopting in these paragraphs, your conclusion would not have been that 1.9 -- sorry -- 1.8 was more probable than 1.9, your conclusion would have been 1.9. Is that right?

A. Yes. This comparison would have concluded that 1.9 was more likely, yes.

Q. Now, looking at your fourth report when you are addressing this scenario of the Government considering a more granular approach to rounding and banding, could we start at paragraph 207?

What you say there -- sorry, let us start at 205, sorry -- what you say there is that the evidence disclosed by DESNZ shows that the Government in fact set banding levels to the nearest 0.25 ROCs in its banding decision for offshore wind {ROC-D/1/84}, so that is your assessment of what the Government was doing in the

actual; yes?

A. Yes. I agree there's no statements in the disclosed material suggesting the Government was actively considering a banding of 1.9, for example, or 2.1 for that matter.

Q. But then you say in 207 that whilst you consider the Government followed a practice of rounding banding levels to the nearest 0.25 ROCs on the evidence that you have got as to what it was doing in the actual, had the cost been lower in the counterfactual, it is possible that the Government would have reconsidered its rounding practice. Do you see that?

A. I see that.

Q. We had the same reference to it being possible if we turn on to page 86 at paragraph 209, it is possible the Government would have reconsidered its practice, and in 209(b) it is possible the Government would have adopted a more granular rounding, and then in your conclusion in 211:

"Hence it is possible that had the Government been faced with different evidence on the costs of offshore wind it would have adopted different rounding practice"; yes? {ROC-D/1/87}

A. Yes, and I think it would --

Q. I have not asked a question yet.

A. Yes. I see this, yes.
Q. Yes. Now, that is not expressing a view, is it, that it is more likely than not that the Government would have set banding levels to the nearest 0.1?
A. My view that the Government would have set banding increments to the nearest 0.1 is explained, I think, in another section, but -- and that is based on the observed fact that the Government did set a banding of 0.1 increments in 2013. It considered a banding increment of 1.6, for example, for offshore wind in 2009, and the various other statements that suggest and show, I think, that the Government was trying to calibrate revenues to be as close to costs as it could to balance these objectives of encouraging investment while minimising costs to the consumer.
THE CHAIRMAN: But I think what Ms Davies is asking is the level of confidence expressed -- that you express in this conclusion.
A. Yes.
THE CHAIRMAN: I think what is being asked is -- you are saying it is possible and asking whether that falls short of, "more likely than not". I can that was -- was that the thrust of the question?
MS DAVIES: The view you were expressing at the time that you wrote your report was only that it was possible.

You were not expressing it with any more confidence than that at the time you wrote your report.

A. I think probably the reason -- again, I might have to re-read the section to form a definitive view, just to answer that, to explain the precise wording here, but I think the reason that it is phrased that way in this part of the report is because I have started by saying that the Government was discussing very explicitly alternative ROC increments that -- of 0.25, but I am trying to explain that in a counterfactual it is not necessarily the case that that would have still -- that it would have been restricted in that way, so I think what is going on here is that I am saying in the factual case this is what the Government said, and those statements are restricted to quarter ROCs, but despite what it said, it is possible that but for the cartel it would have approached the problem differently, and then I ultimately conclude that because of these factors that I mentioned in my earlier answer, I believe it is likely that the Government would have considered different levels of granularity in the counterfactual.

Q. Turn to the Joint Memorandum at {ROC-D/11/110}. You see in the middle of this paragraph, what you say in the Joint Memorandum is that you consider it is highly likely that when faced with a cost reduction in the

order of 0.15 ROCs the Government would have considered more granular rounding than increments of 0.25 ROCs; yes?

A. Yes. I think it is highly likely that they would have considered more granular rounding.

Q. What I am suggesting to you, Mr Druce, is that view expressed in the joint memo of it being highly likely is a considerable strengthening of your view since the time you wrote your first report?

A. I have not compared and contrasted the precise language, but the -- my position in my fourth report is certainly that the Government would have considered granularity of 0.1 increments. I do not think that position has changed through my reports.

Q. Well, we just went through the different paragraphs in your report where you refer to it being possible that the Government would change its rounding practice, its granularity practice, sorry.

A. Yes.

Q. You were not saying it was highly likely, and that is why I suggest to you that what you are now saying in the joint memo is a considerable strengthening of your view since the time you wrote the first -- your fourth report.

A. I think that the language of "possible" was primarily

intended to highlight that the evidence in the disclosure that talks very clearly about 0.25 ROC increments being considered was not the be all and end all, and that it was a -- in the first instance -- a possibility that the Government may have deviated from that practice, but ultimately I have concluded, and it is my opinion, that for the reasons I mentioned earlier and they would have considered 0.1 increments. Again, if there are inconsistencies in the language I am happy to clarify anything.

Q. Now, if we could turn to the proposition 67 of the Joint Memorandum at page 113? The proposition was there is no evidence before the Tribunal that, if faced with evidence of lower costs, the Government would have considered more granular banding levels, {ROC-D-IC/11/113} and you partially agree with that, and you say:

"I do not take the presence or absence of evidence on how Government would have changed its banding decision if faced with different evidence to be particularly important to answering the Tribunal's question.

So, you are recognising, are you not, that there is no direct evidence available to the Tribunal as indicating whether or not the Government would have

changed in 2010 its approach to banding increments?

A. Yes. My partial agreement with that statement is based on -- as I described -- the fact that the disclosed documents show the Government actively considering quarter ROC increments, but I think it is important to remember that the -- it was considering those quarter ROC increments in a -- as we discussed earlier -- in a scenario where the cost estimate of £144 sits neatly between two quarter ROC increments, and that setting a banding level of 1.9, which would have been fractionally above the -- which would have given revenues very fractionally above the £144 would have allowed next to no buffer.

Q. I suggest to you, Mr Druce, that being objective and seeking to assist the Tribunal in accordance with your duties, the most you can properly say is that it is possible the Government would have taken a different view as to banding increments in the counterfactual, as you had said in your fourth report.

A. I think "possible" is an understatement. I think we can see as a matter of fact that the Government did consider banding increments of 1.6 in 2009. It used banding increments of 1.8, 1.9 in 2013, and for all the other reasons I gave I think it is very likely that the Government would have been willing to consider banding

increments of 0.1, and so I think that the word "possible" understates the likelihood.

Q. Just in relation to that answer, the first point you referred to is the Government did consider banding increments of 1.6 in 2008, but it rejected that for the reasons that we discussed yesterday, did it not?

A. It rejected it for a number of reasons.

Q. Yes.

A. I think the reasons we discussed yesterday were primarily about the administration costs associated with having technology-by-technology banding, but the Government was also comparing the costs and benefits of the five or six Oxera scenarios that are listed in Table 5.1 of my fourth report -- but it is clear that the Government asked Oxera to consider, as part of its modelling exercise in the 2009 process, options that had banding at increments of 0.1 ROC.

Q. It also rejected it, did it not, as we discussed yesterday, on the basis that more granular banding was more precise than it is really possible to be when predicting future costs?

A. I think -- well, was that in the context of scenario one or scenario -- because the Oxera -- if I can turn to -- sorry, if you could just give me a moment to turn to the table in question?

Q. Let us come at this in a different way, Mr Druce. I do not want to go back over things that we went over yesterday. Could we go to what the Government actually said to the European Commission in 2010 in relation to banding increments? It is {ROC-E/140/5}. Let us start there.

Answer 11 which we looked at a little bit earlier in a different context. The first point that the [redacted] overnment make in answer 11 is that [redacted] That would have been equally the case in the counterfactual, would it not?

A. There would have been uncertainties, yes.

Q. Nothing in that sentence would change in the counterfactual, would it?

A. The term [redacted] might have been -- sorry -- can I just re-read it? Is this from the middle of the second paragraph shown on the screen?

Q. Yes:

[redacted] (Pause)

A. Yes. That sentence would still have been true insofar as there would still have been a range of uncertainty on costs and revenues.

Q. Then you see the sentence where they say:

[redacted]

Your view that in the counterfactual that you are expressing now, it is highly likely the Government would have moved to lower banding increments, assumes, does it not, that the Government would have taken a different decision than expressed here in relation to administration costs and complexity?

A. Yes. I must admit I find this -- well, I think there is two considerations here. I mean, firstly, this Q&A process is reactive to the Commission expressing concerns about the degree of overcompensation apparently because of the difference between £149 and £144, and I think the document has to be read in that context, but the concept of additional administration costs I find a little puzzling, frankly, because the specific administration that needed to change the decision from 2.0 ROCs to 1.9 ROCs, for example, would be simply to change one number in the Order, and I do not -- so I appreciate the Government is referring to administrative costs, but I find it quite puzzling to -- as to what they might be. I do not -- I have not seen any tangible evidence of the existence or extent of such costs, and I

suspect that this was, in part, a -- the Government seeking to kind of bolster the case for its position of -- that provides revenue of £149 relative to a cost estimate of £144 that these questions are reacting to.

Q. That is your speculation, Mr Druce. You do not have any evidential basis for making that assertion, have you?

A. It is my interpretation of what is going on but I agree I do not know for sure. I am simply -- but I am -- I think it is true to say that the only administrative cost of which I am aware that would result from changing 2.0 ROCs to 1.9 would be changing one number in the 2010 Renewables Obligation Order. I cannot -- and I am commenting on that based on my understanding of the situation.

Q. The Government is making a different point in this paragraph, in this sentence. It is talking about banding levels more precise than intervals of a quarter increasing administration costs, and I understand in that long answer you agreed that your view that it is more likely that the Government would have moved to more precise banding levels would have required the Government to take a different view in the counterfactual?

A. It would have -- yes. It would -- my -- it would require the Government to have been open to considering

0.1 banding increments, yes.

Q. Yes, and to have taken the view that doing that would not increase administration costs.

A. Yes, as indeed it did in the 2013 Order.

Q. And it would also require the Government in 2010 to have taken the view that moving to banding levels more precise than a quarter would not increase complexity; yes?

A. Or that any such increase in complexity and administration costs was justified by the cost saving.

Q. [redacted] That would have remained the same in the counterfactual, would it not?

A. So, maintaining confidence in the UK's offshore wind sector is achieved, by my reading of the documents, by enabling projects in the development pipeline to go ahead, which is achieved by setting subsidies that cover their costs. If the Government was setting subsidies that covered their costs, it is my interpretation of what is going on in these documents that the Government would have been able to maintain confidence in the UK's offshore wind industry by enabling projects to go ahead

where -- in those circumstances.

Q. Mr Druce, that was not an answer to my question. Just focus on the question. The offshore wind under threat was considered to be crucial for the confidence of the offshore wind industry, that would have been the same in the counterfactual.

A. Yes. It would, yes.

Q. Yes. Then you see it goes on to say, 1.75 ROCs were thought not to be sufficient based on cost evidence and representations from the industry which, as we know, were 2.0 ROCs. Your thesis that the Government would have been likely to set a banding level of 1.9 ROCs assumes, does it, that the wind farms would have been prepared to accept 1.9?

A. If their costs had fallen by an amount in -- a monetary equivalent close to 0.1 ROCs, I see no reason why they would not have been willing and able to accept a banding level of 1.9 ROCs.

Q. I think the answer to my question is your thesis assumes that the wind farms and, in particular, your key wind farms, would have been prepared to accept 1.9 ROCs.

A. Yes. I am assuming that they would have been willing to proceed at a reduced revenue in the order of £4, if their costs had fallen by an amount in the order of £4.

Q. Now, if we could turn on to the document at

[redacted]{ROC-E/141/1} which is an -- in date -- [redacted]

[redacted]

3 [redacted]. At the bottom of that do you see it is explained

[redacted]that it should also be noted that to [redacted]

[redacted]

11 [redacted]; yes? You see that?

12 A. I see that, yes.

13 Q. So your thesis that in the counterfactual the Government

14 would have moved to 0.1 banding intervals assumes, does

15 it not, that in the counterfactual the Government would

16 have had a higher degree of confidence in the accuracy

17 of the cost and revenue forecasts than it had in the

18 actual.

19 A. My position is that if the cost evidence had fallen by

20 an amount in the order of 0.1 ROCs it would have been

21 more confident in making a decision that set support

22 levels 0.1 ROC lower. I think, again, in the context of

23 the numbers that were before the Government and the

24 Commission in the context of this exchange, the

25 Government had presented a central cost estimate of £144

which equates to 1.89 ROCs. Clearly, there is no suggestion here that the Government would have set banding that precisely to 1.89, and even at a banding decision of 1.9 ROCs per megawatt hour when costs were equal to 1.89 would have been extremely tight, and I think the statements that Ms Davies is pointing us to are reflecting the numbers that were before the Government at the time.

Q. But look at what is actually written on the page, [redacted] Mr Druce. [redacted] You see that? And what I was simply putting to you was the proposition that your view that the Government would have moved to more precise ROC banding levels than the 0.25 intervals must assume that the Government, contrary to what it said here, would, in the counterfactual, have had a higher degree of confidence in the accuracy of the cost and revenue forecasts. That must be right, must it not, Mr Druce?

A. I am not sure if it requires more confidence in the accuracy, but the numbers would have changed to create more headroom between the revenue associated with 1.9 ROCs and costs, so even if the same degree of

uncertainty persisted in the counterfactual, you would have a starting point of costs that was lower, so your -- the confidence that the Government could have had that a banding level of 1.9 ROCs per megawatt hour would have been sufficient would have been greater than in the factual case, because in the factual case a more granular banding of, say, 1.9 would have -- as compared to the £144 per megawatt hour which implies 1.89 ROCs would have been extremely tight, and that comparison, I think, implies a -- which is the comparison, I think, the Government is making here -- implies a very high degree of confidence in the £144 number, because a hair's breadth higher and the revenue would be below cost, but --

Q. If, in the counterfactual -- the Ernst & Young centralised levelised cost figure had come down by £4.3 to around £140, the margin between that figure and the central revenue figure would have been about 6.4 per cent, would it not?

A. I do not recall the precise percentage but I will take the maths as given.

Q. Those are the figures that Ms Spottiswoode has set out in paragraph 92 of her Skeleton. That is where I am taking it from. £6.43, to be precise, around £6.4 --

A. Okay.

Q. -- whereas in the actual the margin that was allowed by the Government was 3.47 per cent; yes?
A. That sounds right, yes.
Q. What I would suggest, Mr Druce, is that looking at that, a margin of -- your assumption is that in the counterfactual the Government would have acted to preserve the margin at the 3.43 per cent level; yes? Roughly?
A. I have not framed my position in percentage terms, really. I think that my position is that the -- if costs had fallen by an amount in the order of £4 per megawatt hour, just to round a little bit, then it is highly likely that the Government would have sought to reduce the allowed revenue by around £4 per megawatt hour.
Q. Is that really the whole basis for your conclusions, that simply just because the cost is lower the outcome must have been lower? That is really what your view is, is it?
A. That position is supported by various other points that we have been discussing earlier, and that I have referenced in my report. My position is that the Government was -- I do not want to take up time by restating my position -- but I consider it likely that the Government was -- would have considered increments

of 0.1 ROCs, and it is very clear, I think, from the disclosed documents that the Government was going to great lengths to align or to calibrate subsidies to a level no higher than necessary to achieve its policy objectives, and in those circumstances I think it is very reasonable to assume that a substantial cost reduction would have resulted in a commensurate reduction in subsidy.

Q. Well, in the counterfactual, of course, the Government would not be having the two versions of the figures available to it. It would only have whatever the output of the Ernst & Young report was, and your opinion boils down, does it not, Mr Druce, to suggesting that in the counterfactual the Government would have regarded a margin of 6.41 per cent as too high to compensate for uncertainty, and the need to bring on the wind farms, and, therefore, it would have taken a decision to move the banding level.

A. Again, I have not generally talked in percentage terms, but --

Q. No, but that is the consequence of what you are saying, is it not, Mr Druce?

A. Yes, so my position is that if costs had fallen by an amount in the order of £4 per megawatt hour because, for example, Ernst & Young's result had changed by £4 per

megawatt hour, then the margin between the £144 and the £149 would have become -- would have risen from £5 to £9, and that would have allowed the Government to set a banding of 1.9 whilst maintaining a very similar level of buffer, and thus achieving its policy objectives, and I think it is highly unlikely that it would have been so, considering the pressure that it was under to minimise costs to the consumer, and we talk about these -- this banding value of 0.1 and £5 per megawatt hour, but it is important to remember that the Government was aware that these increments of 0.1 ROCs would amount to hundreds of millions of pounds of costs to the consumer, so I think my position is that reflecting that pressure and the -- as well as the pressure from the Commission to avoid over-compensation, the Government would have been willing to consider a different approach to selecting the banding options.

Q. Turn to Question 3, scenario two. For the purposes of Question 3, scenario 2, you approached matters on the basis that the Government would have been willing to move to a 0.1 banding increment; yes?

A. Yes.

Q. In that scenario, if we look at paragraph 233, you suggested that the minimum cost elevation was £2.2 per megawatt hour. {ROC-D/1/95}.

A. Yes. Yes.
Q. Paragraph 233. Now, the approach you adopted to get to that figure was different to the approach you adopted in calculating the minimum cost elevation in scenario one.
A. Yes.
Q. Yes. You did not simply look at what the tipping point would have been to take the revenue estimate -- sorry -- to take the revenue estimate at the next-lowest potential banding level closer, as you did for scenario one. You did something different?
A. Yes.
Q. Now, in terms of what you did, you explain this in paragraph 233, and I just want to make sure we have all understood what you were suggesting. You first assume that the underlying revenue amount that the Government was targeting in the actual was an amount which, if rounded to the nearest 0.1 ROCs, would be rounded to 2.
A. Yes.
Q. On that logic, you get to an underlying revenue requirement of between 1.95 and 2.05 ROCs.
A. Yes.
Q. You then say that is the applicable revenue range, and you do not know where in that range the Government actually was.
A. Yes.

Q. Then the next step in your approach is to say, well, therefore, anything below a revenue requirement of 1.95 would have led to rounding down to the next lowest increment of 1.9, yes?
A. Yes.
Q. And, therefore, if we look at paragraph 4 on page 96, on the balance of probabilities {ROC-D/1/96}, removal of costs equating to 0.05 ROCs would have reduced the banding to 1.9 ROC; yes?
A. Yes.
Q. And 0.05 ROCs is the mathematical equivalent of £2.2 megawatts per hour.
A. Yes.
Q. Now, that approach involves, does it not, rounding down to the nearest banding level as well as rounding up?
A. It does not -- well, yes. It does involve rounding down, or it does involve the possibility of rounding down or up, but not quite in the same way as we discussed earlier in relation to scenario one. It is a different -- it is a slightly different approach.
Q. I understand it is a slightly different approach, but if you take a minimum cost elevation of £2.2, the basis that you go from 2.0 ROCs to 0.1 ROCs -- yes -- is that the cost requirement would be -- although above the revenue requirement of 1.9, ie 1.95, it would be closer

to 1.9 so the Government would have selected on 1.9?

A. Yes, but again it is assuming that there is a revenue requirement that may, itself, exceed the costs, so we are talking about the -- we are talking about a rounding of the support requirement stated in ROC terms to the nearest 0.1 ROCs, given that there would already be a buffer between that support requirement and the cost estimate which would be lower, so we are not talking about rounding downwards in the same way as scenario one might imply setting a support level below the level of cost.

Q. I understand. What you are trying to -- what you explain you are trying to do is to maintain the same level of margin as the Government allowed in the actual?

A. Yes.

Q. But you -- let us work through whether you have actually achieved that, Mr Druce, and make sure we are all clear what you were doing, and I probably need five or so minutes and then I am actually going to finish with Mr Druce, if that is possible.

THE CHAIRMAN: Yes. Let us try to get to the end of Mr Druce before lunch, or at least your cross-examination.

MS DAVIES: My cross-examination. It may be that one of the other aligned parties has a little bit to add on a

different topic.

THE CHAIRMAN: Right.

MS DAVIES: The estimated levelised revenue at 1.9 ROCs is £144.6, we can see from your Table 6.5 at page {ROC-D/1/91}. Yes?

A. Yes.

Q. Whereas the estimated levelised revenue the Government was using was £149 --

A. Yes.

Q. -- if you assume the central point, and so that is a difference between those two of £4.4, is it not?

A. Yes.

Q. So, to get to a cost elevation that proportionately reduced the revenues to below the next banding increment you would need a cost elevation of over 4.4, would you not, Mr Druce?

A. Could you rephrase the question? Sorry.

Q. You told us a moment ago that you were trying to keep the margins, and as we know, on the centralised revenue assessment, £149, that was a margin of five above £144; yes?

A. Yes.

Q. What I am simply suggesting to you is that if you are trying to maintain proportionately the same level of margin, you actually need to reduce the costs to the

next banding increment below that, otherwise you are not going to do it.

A. Forgive me if I have misunderstood the question, but I think what you are saying is that if -- I might be jumping ahead -- but if you start from a revenue of £149 and a cost estimate of £144 and you reduce the costs by, say, £2.2, or let us say fractionally above 2.2 just so we are into that range, then my scenario two on MCE would imply selecting the next banding down of 1.9, and that would imply a reduction in revenues in the order of £4 or so, there having been a cost reduction of only £2.50, let us say. That implies that the buffer would be narrower, but the reason why I -- and I am not sure if I am actually straying beyond the bounds of the original question here but I hope not -- the reason why I am comfortable with that position is that we do not know what the underlying buffer that the Government was targeting was. We can see it was £5, but the underlying figure that they were targeting could have been a little higher than that or it could have been a little lower than that, so the threshold I apply is half of 0.1 ROCs, and that is what I am doing in scenario two. I am not sure if that was your question.

Q. I understand what you are saying but let us just make sure that we are all understood.

A. Yes.
Q. In the actual, the margin as we have discussed was around 3.5 per cent, if you just compare the central revenue estimate and the central levelised cost estimate; yes?
A. Yes.
Q. If you used a minimum cost elevation of £2.2, which is what you are suggesting in this scenario, that would be deducted from the £144 --
A. Yes.
Q. -- which would give you a central levelised cost estimate of £141.8; yes --
A. Yes.
Q. -- which is £2.8 below the central revenue estimate of £144.6 on a ROC banding of 1.9.
A. Yes.
Q. That is -- take the maths from me -- means that you have got a reduced margin to 1.97; yes?
A. Yes. The margin falls.
Q. The reason, as I understood from your last answer, you say that is, nonetheless, the minimum cost elevation, is you do not know whether the Government was, in fact, targeting a margin of 3.5 per cent or something lower, because it was actually the closest figure to 2; yes? But your approach to answering this question, I think we

can agree, assumes that in the counterfactual for with a minimum cost elevation of £2.2, the Government would have accepted a margin that was lower than it actually accepted comparing the centralised figures in the actual.

A. Yes. That is right. So --

Q. I suggest that you have no proper basis to conclude that the Government would have reduced the margin to 1.97 per cent.

A. The basis on which I am -- I select the £2.2 is that I do not know where between -- if you take as a starting point a margin of £5 at 2.0 ROCs, we do not -- and you take as given that increments of 0.1 ROC per megawatt hour would have been acceptable, we do not know where between 1.95 and 2.05 ROCs would have generated a -- the desired -- the underlying desired margin from the Government, so I am simply recognising that uncertainty and saying that -- and saying that, you know, let us assume there is an equal chance of being above or below the number that we actually observe. I am not making a definitive statement. It is a probabilistic statement because I do not know what the Government's underlying target margin would have been in this scenario.

Q. On your approach, and given that you have fairly accepted you do not know, it is equally possible, is it

not, that the minimum cost elevation is £4.4? In other words, that the Government were looking at the top end of your range?

A. That would require that the margin observed in the factual case is the lowest margin that the Government would have been willing to -- am I getting it the right way round -- or rather that the Government would not have been willing to allow -- willing to accept a margin that was tighter than that. Sorry, I think that is a slightly more extreme statement.

Q. You do not have a basis for saying where on the line the Government would have been, do you?

A. No, and I make that very clear. I do not know -- in this scenario I do not know where between 1.95 and 2.05 the underlying estimate would have been, and therefore I account for that uncertainty in my MCE estimate for that scenario.

Q. But it must follow, Mr Druce, that you cannot have confidence that a minimum cost elevation of £2.20 in this revised scenario would have been sufficient to move the Government from two to 1.9.

A. It is equally true -- it would be equally true to say that I do not know whether a cost reduction of, say, £1.50 would be enough, or whether £3.50. The selection of £2.20 is designed to be -- to reflect the mid-point

of the range of uncertainty that I face between the 1.95 and the 2.05.

MS DAVIES: Thank you, Mr Druce. I have no further questions.

THE CHAIRMAN: Thank you very much. Let us break there. We will come back at 2.05. Thank you very much. The usual warning over the break please, Mr Druce. Thank you.

(1.06 pm)

(Luncheon adjournment)

(2.05 pm)

THE CHAIRMAN: Yes, Mr West?

Cross-examination by MR WEST

MR WEST: Could I just ask you about one proposition in the joint expert statement? That is proposition 23 at [redacted]{ROC-D/11/41}. The proposition is that the [redacted] and on this point, as you can see from the answers below, London Array's expert takes a slightly different view to the others. You say in your box:

"As noted above in response to proposition 21 the Government cited EY's £144 megawatt hour cost figure but made its own revenue assumptions to derive the required level of support".

Could we just go to [redacted]

{ROC-E/130/9}? Do you see, Mr Druce, under the column [redacted], you see the [redacted].

A. Yes.

Q. [redacted] Do you see that?

A. Yes.

Q. [redacted] That is tab 112 of this bundle, page 21. {ROC-E/112/21}. You see there is a table there, Table 2, [redacted]. Do you see that?

A. I see the table. Just about. Yes.

Q. I am not going to go through it now but it is possible to translate most of the figures in this table into the revenue column in the [redacted]. Is that an exercise you have looked at before?

A. The comparison between the base case row and this table and the [redacted]? I do not recall having compared those next to each other directly, but I think the -- from my previous efforts to observe what -- to see where in the Ernst & Young report one might find those revenue

numbers has left me concluding that there was a degree of ambiguity about precisely where they came from, actually, and in any event it is very clear that with the same levelised cost result of £144, the Government and Ernst & Young reached different assumptions as to the required level of banding support. Ernst & Young obviously suggested 2.5, whereas the Government said 2, so given the same levelised cost figure, I have inferred that there must be a difference in the revenue assumption.

Q. That is the point I was just coming to, Mr Druce. The only point you are making in proposition 23 is that whereas Ernst & Young took these revenue figures as [redacted] implying a need for 2.5 ROCs to meet the £144, [redacted]

A. If, indeed, they are the same revenue figures. I recall trying to replicate the -- or ascertain where the figures in the -- or to compare the revenue figures in the State aid document to the revenue figures in the Ernst & Young report and concluding there was a degree of ambiguity in where they might have come from. I could not see them as -- I could not confirm that they were identical.

Q. But where you refer to the Government carrying out its

own revenue analysis, you are not referring to some separate revenue analysis?

A. No. I am simply referring to the fact that given the same costs, the Government reached different conclusions as to the level of required -- as to the level of required revenue that would be needed. I am also referring to the fact that I had not been able to replicate one-for-one where those revenue numbers had come from in the EY report. I felt that there was a degree of ambiguity in it, and so that is what I am saying in that proposition.

MR WEST: Thank you very much. That is all I was going to ask.

THE CHAIRMAN: I don't think there is anyone else wanting to cross-examine so we will move to re-examination, Mr Lask.

MR LASK: Thank you.

Re-examination by MR LASK

MR LASK: Good afternoon, Mr Druce. Could we go, please, to the transcript from yesterday at page 154? {Day2/154:8}. I would like you to look, please, at line 8. It is line 7 on the screen. The question is -- this was a question put to you by Ms Davies yesterday:

"It must follow that your view is that the 2010 banding decision was not driven by the Ernst & Young

centralised cost estimate at all".

Then you say in response:

"Well, it -- of course the Government -- it is clear from disclosed documents, again, that the Government did use the Ernst & Young results, it did look at the results, and it did consider them, but I think that the determinative factor that led to the Government's decision was ultimately the need to support the -- to support particular wind farms that it felt were important to achieving its policy objectives".

Then if we go, please, to page 159 of this transcript {Day2/159:1} you see at the top of this page Ms Davies says:

"The second part of it is: that is why you have reached the conclusion that the Ernst & Young LCOE figure was irrelevant to the Government's analysis ..."

In light of what Ms Davies put to you there, please could you clarify your position on the relevance of EY's results to Government's decision?

A. So, I think it is clear that the Government looked carefully at the Ernst & Young report. It considered the base case estimate of the LCOE. It considered the sensitivities around the base case that Ernst & Young had estimated, and it -- and that those had, in that sense, informed its banding decision. My position is,

as I hope I had described yesterday and today that I think that the Ernst & Young report, although it prescribes a base case result of £144 per megawatt hour, the thing that was ultimately determining the banding decision was the economic need that the Government perceived to support particular wind farms it deemed to be pivotal to meeting its renewable targets. I do not -- and I think -- and in relation to this paragraph here, I think we were -- I am trying to remember the discussion -- but we were -- I was making the point that although it is -- although Ernst & Young accounted for six wind farms when computing its average, I think that is clear, it said so, the more expensive of the wind farms that were likely considered by Ernst & Young, so the three benchmark wind farms that I have identified are the wind farms whose costs would ultimately have determined the level of support that the Government needed to provide, because those were the projects the documents show were pivotal to the Government's thinking.

Q. Thank you. If we go, please, to tab 12 of the advocates' bundle? {ROC-AB/12/5} This is Table 3 of Ms Davies' margins document that was handed up to the Tribunal on the first day of trial. You will recall, Mr Druce, that you were asked some questions about it.

I have asked for it to be put up on the screen just so that you can refamiliarise yourself with the document but if we could then go, please, back to the transcript from yesterday at page 135 {Day2/135:1} you will see at the top of the page the question that is put to you is as follows:

"What I would suggest to you, Mr Druce, is that that indicates ..."

And that is a reference to the margins table that you have just seen:

" ... that indicates that in the 2009 Order the Government was not seeking, with any degree of precision, to set the banding level no higher than necessary to cover the anticipated costs".

So, you are being asked what inferences can be drawn about the Government's intentions from the margins document, and could you just read your answer, please, at lines 6 to 20?

A. Certainly. The answer says:

"Within the context ..."

Q. Sorry, no. You do not need to read it out loud, just remind yourself?

A. Sorry. (Pause)

Yes. Thank you.

Q. So you are talking there about the trade-offs. If we

could go now, please, to {ROC-E/50/1}, the front page there, this is the Government's response to the consultation for the 2009 Order dated December 2008. Are you familiar with this document?

A. Yes.

Q. If we could go, please, to page 11? {ROC-E/50/11}? You see here that there is a summary of bands for the 2009 Order, and if we go over the page {ROC-E/50/12}, you will see an explanation under the heading "Principles of Banding", if you could just read to yourself, please, paragraphs 2.1 and 2.2?

A. Yes.

Q. Then over the page, paragraph 2.6, please, the Government says:

"That said, the banding levels have been set with consideration of the volumes of ROCs coming forward from each technology so that there is limited disruption in the number of ROCs being issued, compared to a situation where 1 ROC is issued. The Government has carried out modelling work which anticipates that, when averaged across the period up to the next review of the banding regime ... 1 megawatt hour of renewable electricity will receive 1 ROC".

It says this point is covered in chapter 6. Having regard to these passages and the margins document that

you were shown, is there anything further that you would like to say as regards the Government's intentions in 2009 -- for the 2009 Order?

A. Well, yes. I can certainly elaborate on my answer from yesterday. The margins table that Ms Davies prepared shows -- contains a long list of different technologies, and the situation facing the Government when deciding how to subsidise those technologies was rather different across the piece, so for some technologies they were emerging, they were new technologies which had probably very limited resource, potential to be developed to support -- to help the Government meet its renewable energy targets, and so some, for example, tidal technologies and solar PV, and those technologies, we can see the banding was -- they were placed within an emerging technologies bucket within that Order, and the banding was calibrated much -- with rather limited precision to their costs, and we see that in the margins table.

We also see that there is -- there are some technologies where the Government was trying to provide less support to -- because it felt that under the one ROC per megawatt hour approach that had existed until 2009 there was a degree of over-compensation, and we can also see from some of the earlier -- the first

paragraphs in this document -- that Mr Lask showed me, that the Government was trying to encourage investment in some of the other -- some technologies that were deemed to be important to meeting the Government's renewable energy targets, in particular, as we have discussed throughout the last two days, wind technologies were very important to ensuring that the offshore wind in particular was the key emerging technology that the Government at the time felt was crucial to meeting its renewable energy targets, and I think it is fair to say would have been a more important consideration in setting those bands than other technologies, but I am happy to provide comments on any specific points that you wanted to raise.

Q. One follow-up question I have is in relation to paragraph 2.6, where the Government says that its modelling work anticipates that when averaged out across the period the banding regime -- sorry -- when averaged out across the period of the banding regime, one megawatt hour of renewable electricity will receive 1 ROC which, of course, was the existing position before banding was introduced. Are you able to explain to the Tribunal how Government would have managed to devise a banding regime that averaged out at 1 ROC per megawatt hour?

A. Well, as a matter of mechanics I think that the fact it averaged out at 1 ROC per megawatt hour would have resulted from some renewable generators receiving more than 1 ROC and some receiving less than 1 ROC, so that is how you can offer banding whilst also coming up with that result. The modelling work in question, I think, is a reference to the Oxera modelling work that was taking the cost estimates of offshore wind and other renewable technologies that had been prepared by Ernst & Young and had estimated the likely deployment of those technologies within a model, and that modelling generated a forecast of how much renewable energy would be deployed under the different banding scenarios listed in Table 5.1 of my fourth report, and also the costs to the consumer under those alternatives, and the Government considered those factors -- the results of those modelling runs -- when it took its 2009 banding decision.

Q. If you go back to the transcript from yesterday, page 135 {Day2/135:19} to 20, you say there:

"What is different between the 2009 and 2010", and then you were interrupted. Would you like to complete your answer now?

A. Yes. I was going to continue to say that the margins -- that there were important differences between the way

that the Government approached the 2009 banding process and the way it approached the 2010 banding process, and I think those reasons point in the direction of expecting to see narrower margins in 2010 than you would have seen in 2009, so in 2009, as we have discussed, there were fairly limited -- the Government was considering a fairly limited menu of banding options that set banding levels across a wide range of technologies. 2010 was different because it was focused specifically on offshore wind. The only objective of the 2010 review process was to re-examine the costs of offshore wind and to set subsidy at that level. The imprecision in the calibration of revenues to costs that might come in if you are trying to, at least for some technologies, if you are trying to set subsidy for a long list of technologies, wasn't there in the 2010 Order, or in the 2010 process, so -- and another difference between 2009 and 2010, of course, is that there was more cost evidence available by then because the offshore wind industry was developing at pace at that point, and more information was available as time went by, so I think there are reasons to think that the precision of the 2010 process would have been substantially greater than the precision possible in respect of offshore wind than in the 2009 process, and

I think there are also good reasons to think that the 2009 process might have been less precise for other technologies besides offshore wind for other reasons such as there being emerging technologies or in the case of onshore wind, for example, we see the Government did not even consider changing away from 1 ROC per megawatt hour because all of the Oxera scenarios had the same level of support, so it was a much -- it was a -- the 2010 review process would have been far more precise in that sense.

Q. Thank you. Is it possible now, please, to go to today's transcript, page 26? You were being asked here about the cost calculations for the -- for your benchmark wind farms. If you could just remind yourself of the line of questioning by reading to yourself what is on page 26? (Pause)

A. Yes. I see that.

Q. Then if we go to page 27, please? (inaudible speech). Would you like to finish your point, and if so would you like to do it by reference to the EY report?

A. I can try if I --

Q. Shall we pull the EY report up at least so that the Tribunal can have it?

A. Yes. The key thing --

THE CHAIRMAN: Let us get the report up if you do not mind.

A. Yes of course.

MR LASK: It is {ROC-E/112/1}. Actually, if you could tell me which part of the report you would like to speak to, I can --

[redacted]A. The first part would be the results of the [redacted]

Q. Yes. So, that will be on page {ROC-E/112/22}. Is that what you had in mind?

A. Yes.

Q. Scroll into the second half.

[redacted]A. [redacted]

[redacted], as it was, and we can [redacted]see that in documents, that the [redacted]

We can also see -- we also know from the -- that the [redacted]impact of the [redacted]

[redacted] Q. Shall we look at the next page which has the [redacted]
[redacted]? That is page (Inaudible).
A. Yes, so again we can see from the chart at the bottom, again, this chart provides a guide as to how the [redacted]. That is not too far if the assumption I made in my early reports, and I think it is also mentioned in some of the disclosed Government documents from the time of the banding decision, that that was aligned with the Government's expectations.
So, the combination of those two results would provide a guide to the Government officials when reading [redacted] -- these key input parameters and the point I was making in the section of the transcript that Mr Lask showed me a moment ago is that you can apply those same types of [redacted] adjustments, not just to the [redacted]

[redacted] for example, if you were trying to understand, say, the London Array costs, if you are starting from a number in the order of £180 you can apply similar adjustments to understand how that £180 might fall if you take different assumptions about these key input parameters, and my comments were based on documents that we have seen from the DECC disclosure showing that the Government did expect, for example, the OFTO regime to generate additional value through a reduction in financing costs.

Q. Thank you. The final topic concerns your minimum cost elevation analysis. Could we go, please, to page 87 of today's transcript? At the bottom the question begins:

"What I am simply suggesting to you is that if you are trying to maintain proportionately the same level of margin ..." (inaudible speech).

For context, this is concerning your scenario two (Inaudible). You say in your answer:

"Forgive me if I have misunderstood the question, but I think what you are saying is that if -- I might be jumping ahead -- but if you start from a revenue of 149 and a cost estimate of 144 and you reduce the costs by, say, 2.2 or let us say fractionally above 2.2 just so we are into that range, then my scenario two on MCE would imply selecting the next banding down of 1.9, and that

would imply a reduction in the revenues in the order of £2.50, let us say. That implies that the buffer would be narrower (inaudible)".

Just pausing there, I think what you are accepting there is Ms Davies' proposition that in a world with a cost reduction of, for example, £2.50, a decision to award 1.9 ROCs would entail a narrower buffer.

MS DAVIES: That is a very leading question by way of re-examination.

MR LASK: I am surprised there is an objection because that was the point that was put to Mr Druce and I think he accepted it.

MS DAVIES: I am just objecting to the formulation of the question in terms of re-examination, which is to summarise the view of the witness. Simply -- it is not the way a question should be put in re-examination. It started by "I think you are accepting there that", and that is not the way it should be put.

MR LASK: Right. Well --

THE CHAIRMAN: It may be -- just ask the witness, the expert, if he accepts the proposition. I mean, I think the Tribunal would like to understand whether the proposition advanced was being accepted or not, so I will permit a question to be put in those terms.

MR LASK: Thank you. Do you accept the proposition that was

put to you as I have summarised it?
A. I think the answer is "yes". I was accepting that if you start with a buffer of £5, costs fall by £2 but if revenue were to fall by £4, then the buffer would be narrower.
Q. Thank you. If there was a cost reduction of £2.50 and the Government maintained an allocation of 2.0 ROCs, what would happen to the margin as compared to the factual?
A. It would increase by £2.50.
MR LASK: Those are all the questions I have, sir.
THE CHAIRMAN: Thank you very much, Mr Lask.
Thank you very much for your time, Mr Druce. We do not have any further questions for you, so you are free to come or stay as you choose.
MS DAVIES: We are next going to Dr Moselle.
THE CHAIRMAN: Yes.

BOAZ MOSELLE (Affirmed)

Direct Examination by MS DAVIES

THE CHAIRMAN: If you want to do a sort of bulk adoption of expert reports we would be quite happy with that as well.
MS DAVIES: Thank you, sir. Good afternoon, Dr Moselle.
A. Good afternoon.
Q. You have provided four expert reports in these

proceedings. That is right, is it not?

A. And the Joint Report.

Q. Yes. I am going to come to the Joint Report, but the four expert reports, just so that we can identify them for everyone so that they know, 20 October 2023, which is in tab 12 of ROC-D; 15 February 2024, tab 14 of ROC-D, and then your third expert report of 13 December 2024 at tab 7, and your fourth expert report of 29 January of this year at tab 9. Those are the four reports you have produced.

A. They are.

Q. And you have also contributed to the Joint Memorandum at {ROC-D-IC/11/1} with the column with your name above it?

A. That is correct.

Q. Can you confirm that the opinions that you have expressed in those four reports and in the Joint Memorandum are your true professional opinions?

A. I do so confirm.

MS DAVIES: Thank you very much. There will be some questions.

Cross-examination by MR LASK

MR LASK: Good afternoon, Dr Moselle.

A. Good afternoon.

Q. Could you go, please, to Dr Moselle's third report at {ROC-D/7/37}? This is paragraph 5.5. In this passage

you summarise your reasons for answering, "no" to Question 2 of the ROC questions, and you rely on what you describe as a small cost elevation associated with a 26 per cent overcharge, and three contextual factors, the degree of uncertainty in the cost and revenue estimates available to Government, the Government's preference for what you call "round numbers", and Government's obligation to consider various statutory factors when reaching a decision on banding. Do you see that?

A. I do.

Q. I want to start with uncertainty, please.

Your position, in summary, I think, is that there was a large measure of uncertainty in the cost estimates relied on by Government, and that this was reflected in the ranges that were ultimately presented by the Government in the [redacted]. Do you agree with that?

A. I mean, I agree that -- with both of those things. I am not sure that is all of my position. There is also uncertainty in the revenues and the uncertainty is reflected in various documents, not only in the State aid documents.

Q. Understood. Could we go, please, to the EY report at Bundle E, tab 112? {ROC-E/112/1}. You will no doubt be

familiar with this report, and you will presumably agree with me that this is the source of the [redacted].

A. I do agree.

Q. Could we go, please, to page {ROC-E/112/18}? We see here Figure 9. It might be helpful to zoom in a bit please. Figure 9 [redacted] yes?

A. That is right.

Q. On your calculations this estimate would have been lower in the counterfactual by 2.9 per cent; yes?

A. Yes, with a few caveats which are in my reports.

Q. And 2.9 per cent would equate, in pounds and pence, to £4.20; yes?

A. That is correct.

Q. So in the counterfactual, the base case cost estimate would have been £139.80; yes?

A. That is the best estimate, as I say, with the caveats that we do not have the data for all six of the wind farms, but yes.

Q. Yes, doing the best you can --

A. Yes. Exactly. That is my best estimate. Sorry, I don't mean to talk over you.

Q. And you accept that this corresponds to a banding

coefficient that is approximately 0.09 lower in the counterfactual in terms of ROCs?

A. Again, that is a best estimate.

Q. So it is around 1.91 in the counterfactual.

Sorry, I am jumping ahead. I do apologise. If one were to reduce the Government's ultimate award of 2 ROCs by 0.09 you get to about 1.91?

A. I certainly can agree with that, yes.

Q. Thank you. Could we go, please, to page {ROC-E/112/20}, Figure 11? If we could zoom in, please? This is the first of a number of [redacted], and this one illustrates a sensitivity of levelised cost to the assumed project discount; yes?

A. That is correct, yes.

Q. And bars 2 to 4 in the diagram provide the cost range that is subsequently cited in the [redacted], the cost range of £128 to £160; yes?

A. That is correct.

Q. And you would agree, would you not, that this is an important sensitivity, given that it provides the costs that are subsequently cited in the [redacted]?

A. Yes, I would agree, it is an important -- I am not sure that it is more or less important than other sensitivities but yes, I would agree with that.

Q. It is this one, it is the cost -- the cost range from

[redacted]this sensitivity that finds its way into the [redacted]
[redacted]; yes?
A. It is, so if I remember rightly in the [redacted] -- I may be remembering wrongly -- the Government say this is something like -- this illustrates the range of uncertainty, so yes.
Q. We can come to the [redacted] in due course, and I will show you where this range is set out, but for present purposes let us assume that I am right in saying that this is the cost range that finds its way into the [redacted]?
A. So I do not dispute that. All I am saying is the fact that it finds its way there does not mean that the Government thought this is the only one or the most important one. I think the Government say this one illustrates the range of uncertainty.
Q. Right. Well, perhaps we will come back to that point when we go to the [redacted].
In any event, I think it is your position that in each case in this sensitivity the costs would reduce in the counterfactual by 2.9 per cent; yes?
A. I mean, it is £4.20 divided by the cost, which would be slightly different in each case, but maybe to the nearest one decimal place it is always the same. I don't -- I can't do that maths in my head.

Q. It would be fairer if I took you to the relevant part of your report.

A. Yes.

Q. So let us go to Dr Moselle's third report please, which is at {ROC-D/7/56}. You can see there paragraph 5.69 which is quite a long paragraph, and you give quite a detailed explanation as to how you produce your calculations on cost elevation and corresponding effect on banding coefficient, and in subparagraph (a) you explain that you estimate the percentage cost elevation, i.e. the higher costs due to the alleged price elevation caused by the infringement, and at (ii) you say:

"The two figures from above imply that the cost elevation of benchmark wind farms was 26 per cent of 11.3 per cent which amounts to a cost elevation of about 2.9 per cent".

Then later on at subparagraph (c) you present this -- sorry, this is page {ROC-D/7/57} -- you present this in pounds and pence terms as £4.20. Do you see that?

A. I do, but, sorry to interrupt you, I think I agree with what you said in the first place, that under my methodology it would always be the 2.9 per cent because the 2.9 per cent comes first, if you like.

Q. Good. Thank you. If we can go back, please, to the EY

report at {ROC-E/112/20}, if, for example, we take the 10 per cent sensitivity, so the second bar, and we apply your cost elevation, or cost reduction, whatever you want to call it, it follows, does it not, that the £128 figure in that second bar would reduce to approximately £124.30; yes?

A. I am taking your word for it (cross talk).

Q. Hopefully the maths are correct, if they are not, someone will jump up, but that equates to a cost reduction --

MS DAVIES: (Inaudible) £4.20 is not --

MR LASK: No. Not minus £4.20 minus 2.9 per cent.

THE CHAIRMAN: Just so that we're all clear on what your maths are, and Dr Moselle is clear, you are applying a 2.9 per cent reduction in £128 to get to your figure, so you are multiplying by 0.971.

MR LASK: Exactly. Well, I am reducing it by 2.9 per cent. You are no doubt right that that is what it comes to.

A. That is correct.

Q. Thank you. In pounds and pence terms that equates to a cost reduction of £3.70, so applying the same 2.9 per cent reduction produces a different pounds and pence cost reduction depending on your starting point.

A. That is correct.

Q. If we could go back, please, to 5.6 -- paragraph 5.69 of

Moselle 3 which is {ROC-D/7/56}, as I said, this explains how you calculate the effect of a certain cost reduction on the required banding coefficient, and you say at paragraph 5.69(b) that you rely on the assumptions and inputs that you believe EY relied on in a 2009 report. Do you see that?

A. Yes.

Q. Now, I can take you through the steps, but it may save time if you can agree with me that applying your approach, the recommended banding coefficient for EY's 10 per cent sensitivity would reduce to approximately 1.9 ROCs in the counterfactual.

A. When you say "the recommended" you mean the recommendation that -- I mean there is a sort of -- there is a lot of work going on in the word "recommended". There's a mechanical calculation and then there is a question of what recommendation EY would have given and what recommendation officials would have given to the minister, and so on, so if you could elaborate a bit on what you mean?

Q. Perfectly fair. What I mean is the mechanical calculation produced by EY -- I am sorry, we are having to jump back and forth a little bit in the documents -- but in that sensitivity, Figure 11, it is 10 per cent sensitivity, has a cost of £128 and a ROC banding

coefficient of 2?

A. Yes.

Q. And it does not matter whether you call it recommended or mechanical, that is not important for present purposes. What I am putting to you is that on your approach, in the counterfactual the 2.0 ROCs figure would come down to approximately 1.9.

A. I mean, there is a twist with that as well because to go from whatever is in the EY spreadsheet that we do not see to the two that they recommend, presumably there is some rounding going on there, so -- and I think Mr Druce talks about this -- maybe their spreadsheet says 2.4, and they have reduced it to 2. Maybe it says 1.96 and they have rounded it up to 2. We just do not know, so depending on what the underlying number is, the answer to your question, I think -- I think the answer to your question depends on what that underlying number is. If the underlying number in the spreadsheet that we do not see was 2.00, then what you say is correct, but we do not know if that is true or not.

Q. Right. Well, let us take it in stages. You have agreed that if the true number is 2, then I am correct that on your approach it comes down to around 1.9 in the counterfactual, if the true number is 2. As you say, we do not know what is going on underneath the bonnet.

Suppose, for example, that the underlying range was -- well, the underlying figure was in the range 1.95 to 2.05. If you reduce the upper and lower bounds by 0.09, that produces a range of 1.86 to 1.96; yes?

A. That is correct.

Q. The mid-point is 1.91.

A. That is also correct.

Q. So it still approximates to 1.91.

A. I am not sure what you mean by -- oh, do you mean that if -- no, what do you mean by "it approximates to 1.91"?

Q. Well, if you are -- given that we do not know what the true underlying figure is, if we assume that it is in that range, the 1.95 to 2.05, and we apply your 0.09 reduction, both the upper and lower bounds reduce to the same amount, so if you are EY and you are taking a mid-point anyway, you end up at 1.9 still.

A. Well, sorry, I do not think anyone would think that EY were taking a mid-point. I think the assumption you are making is that EY were rounding to the nearest 0.1, and it is true that if they were rounding to the nearest 0.1 and they got to 2.0, then if all the figures were reduced by 0.09 then most likely they would have ended up at 1.9. I think that is correct.

Q. Thank you.

A. But, as I say, I think -- well, maybe I did not say

this -- but the assumption is doing a lot of work there.

Q. At the end of the day, we do not have EY's model so we do not know what the underlying number is; correct?

A. That is correct. We have the model from 2007 which they said they would use -- well, we have a version of the model from 2007 which they said that they would use in this study, though we do not have the spreadsheet with the numbers in.

Q. And so the best one can do, if one wants to reach a view on what would have happened to the two ROC figure, or what would have happened, sorry, to the 10 per cent sensitivity in the counterfactual, the best one can do is take the two ROC figure because that is all we have.

A. I think it is not an issue of taking the two ROC figure, the assumption you are making is that they -- the two ROC figure reflects a rounding to the nearest 0.1. I mean, are you asking is that the best one can do?

Q. Well, the question is, because one necessarily gets into speculation when one tries to work out what is underlying the two ROC figure, the best one can do on the figures we have, on the information we have, is take the -- we want to know how that sensitivity would have changed in the counterfactual, the best we can do is use the figures we have and apply your approach to the two ROC figure. That is the only point.

A. So if you are asking -- is the question -- I suppose there are two questions. One is in the counterfactual -- sorry, in the counterfactual world there is a spreadsheet which we do not see, just as we do not see in the actual, and what is the number in that spreadsheet, and then there is a counterfactual report, and there is a question as to what the counterfactual report would have said, and I think the debate we are having now is what number would you see in the counterfactual spreadsheet. So, if we --

Q. Well, sorry to interrupt, actually what I am asking about is what figure do we see in the final report, because we do not have the underlying materials, and if the Tribunal wants to work out how the report, the final report would have changed in the counterfactual, the point I am putting to you is: because we have to avoid speculation, the best we can do is take the two ROC figure.

A. I mean, I think earlier you said, "because we have to speculate this is the best we can do" and I think I would agree more with that rather than avoiding speculation. There is inherently some degree of speculation, is there not. I think the reason why I was making the distinction is that there is a question of what would have been in the -- in their calculation, so

in other words in the counterfactual spreadsheet, and then there is a question of what they would have done to go from the counterfactual spreadsheet to the counterfactual report, and mostly in this report they are sticking to, you know, 2.0, 2.5 -- increments of 0.5 or 0.25 -- so the question for the Tribunal, I think, is -- sorry for the panel, for the Tribunal -- is whether, in the counterfactual report, if the counterfactual spreadsheet said 1.9, would EY have said, "we are going to stick to these increments of 0.25" and still put 2.0 in their report, or would they have said, "we will put 1.9 into the report"?

Q. Could we bring the EY report back up, please? {ROC-E/112/20}. You said a moment ago that EY was sticking to increments of 0.5 or 0.25.

A. I think I said they mostly are sticking --

Q. I am concerned with this sensitivity?

A. Yes.

Q. You see in this sensitivity, actually, the final bar uses an increment of 0.1.

A. That is correct. That is why I said, "mostly". Mostly in this report you see numbers like 1.5, 2.0, 2.5, but sometimes you see 2.9, 2.6, I believe, appears.

Q. But you would not suggest that in this sensitivity they are rounding to the nearest 0.25 or 0.5. They are

obviously not, are they? The final band is 2.9.

A. I mean, there is a -- some of those are -- so I think you are suggesting that it is just a coincidence that the first three end up as being 0.5, 0.0 and 0.5. That seems to me a little unlikely. You would have to ask, on the other hand, under the alternative theory, why would they have chosen to be more granular with the final one, the 14 per cent? I mean, in the draft of this, or in -- one of the slides they showed to DECC, they have this picture, and they identify 14 per cent, and they say this is the State aid limit, so maybe they wanted to be more granular because they thought, somehow, it was related to the fact that this was the State aid limit. I do not know. You can see this is descending into terrible speculation.

Q. Let me try and simplify it because I think we do need to avoid terrible speculation. You have already agreed with me, I think, that applying a mechanical -- applying your approach at 5.69 of Moselle 3 mechanically to the 10 per cent sensitivity would bring that two ROC figure down to about 1.9?

A. Yes. I think we are saying that in the counterfactual spreadsheet you would expect to see 1.9 if they were rounding to the nearest 0.1.

Q. Thank you. Could we go, please, to {ROC-E/107/1}? This

[redacted] is [redacted]

[redacted]

[redacted]. Are you familiar with this document?

A. I am indeed.

[redacted] Q. At paragraph 3(a) you will see it [redacted]

[redacted]

A. That is correct.

[redacted] Q. If we go, please, now, to {ROC-E/128/1}, this is the [redacted]

[redacted]. Are you familiar with this document?

A. I am.

Q. Sorry, was that a yes?

A. That was a yes.

Q. Thank you. Page 6, please. Zoom in on paragraph 2.12 [redacted] {ROC-E/128/6}. You see here this is [redacted]

[redacted]

[redacted]. That is what it is endorsing; yes?

A. That is what they are endorsing. When you say it is their focus, I am not -- I would have to --

Q. Sorry, I did not hear that.

A. Does anything hang on you saying that it is their focus? They are certainly endorsing it. Those are the only --

Q. Well, they are focusing on the base case estimate rather than the range or any other figure within the range.

A. That is correct. Yes.

Q. Could we go next, please, to the [redacted], {ROC-E/138/10}? If we just scroll up so we can see the

text immediately above the tables, please, you see there that it says:

[redacted]

[redacted]; yes?

A. Yes.

Q. So those are the previous figures that were provided for the [redacted], and you will see that in all but one case in these tables, 2006, 2010, 2015 and 2020, in all but one case the cost and revenue figures are provided in ranges. Do you see that?

A. I do not see all of the page.

Q. Oh, I'm sorry. Let us take it in stages. So, if you look at -- yes, see what you can see and then we will scroll down.

A. Yes. So, tell me again what I should be seeing.

Q. If you look at the -- so the left-hand side, the left-hand column sets out the cost estimates and you will see that in every case the cost estimates are presented as a range. You see that?

A. Yes.

Q. Then on the right-hand -- in the right-hand column you see the revenue estimates, and you will see that in the first row, the 2006 row, you will see the total revenue is £80, which is a specific figure, it is not a range,

but then you will see that the other entries that follow are given as ranges. Do you see that? 2010 --

A. I do see that. I do not see it for 2020 but I am sure I can see it if we scroll down.

Q. Scroll down and we can see 2020. It might be the next page {ROC-E/138/11}. Yes. There we go. Top of the next page. Do you see the range £82 to £131?

A. I do. I do not see the cost range but maybe I should take your word for it that it is a range.

Q. Well, if we go back up to the bottom of the previous page you can see the cost range on the left-hand side. {ROC-E/138/10}.

A. Got it, thank you.

Q. Got it? So in all but one case in these tables the figures are presented in ranges. Then we have -- we go -- we can go on to page {ROC-E/138/11} now. You see we have since updated the cost figures taking into account the EY report. You see that?

A. I do.

Q. And then we have the updated tables, and the 2006 table was actually -- actually presents the same figures as ones we were just looking at. 2010 has changed. 2010 has been updated, and again, you have in the first column, the cost estimate, and in the second column you have the revenue estimates. Do you see that?

A. I do.
Q. You see that in the first column, just taking costs, what you have is both the base case and the range.
A. Yes. I see that. Yes.
Q. But the Government is highlighting the base case here in a way it did not in the previous set of tables, so in the previous set of tables it just presented a range. Now it is highlighting the base case; yes?
A. I am not sure -- I can see it is doing that. I am not sure what -- beyond the fact that it does it, I am not sure what highlighting means.
Q. Well, what I am suggesting is that it must have been attaching some importance to the base case, otherwise it would not have bothered highlighting it in the table.
A. It must have attached some importance otherwise they would not have bothered including it in the table, I would say.
Q. All right.
A. It would (cross talk).
Q. It would not bother specifying the base case unless it --
THE CHAIRMAN: Sorry, there was a degree of overspeaking there. I mean, the debate is about highlighting versus mentioning. Can you just say what you said? It would not have bothered --

A. Including it.
THE CHAIRMAN: Including it.
MR LASK: Just while we are here, you see the range that is given for costs in 2010 is £128 to £160, and that is the range we saw in Figure 11 of the EY report, and I put it to you that Figure 11 must have been an important sensitivity because the cost range in that Figure found its way into this notification. Do you remember that.
A. I do remember that?
Q. Can you agree that now, now that you can see the range set out here?
A. What -- so do I agree that that is where it came from?
Q. No. Do you agree that -- given that it is set out -- that this is the range that is presented by the Government to the Commission, do you agree that the sensitivity from which it is derived must have been an important sensitivity?
A. I mean, I think as I said earlier -- well, maybe we could scroll down a bit on this?
Q. Yes. Which bit would you like to look at?
A. I think that -- but I may be misremembering, there are a lot of documents in this case -- in this document, but it may be in a different one, the Government said this range illustrates the --
Q. Yes. Yes. It does say that, and like you I am not

quite sure whether it is this one or the Q&A, but we are going to come on to the Q&A, it is not -- if we can scroll down you can see if it is in this narrative that follows. I do not think it is. It must be in the Q&A which we will come to.

A. Sorry, maybe it would be better, I think, to discuss the significance of the Government attached to that particular sensitivity if one could look at what they said about it, so --

Q. We will bring it up again when we come to that document. If we could go back to the previous page, please, where we had the 2010 figures? {ROC-E/138/11} we see there that you have a cost -- a base case cost estimate of £144, and then in the revenue column you have a central revenue estimate of £149, and I say "central" because, as we will see, that is how the Government describes it.

A. I see that.

Q. You see that? And then if we go, please, to the next page where we have the narrative {ROC-E/138/12} underneath the table, so the first paragraph says:

[redacted]

[redacted]

And then it goes on also to mention the OFTO regime, both of which will bring down the level of ROCs required to meet that hurdle rate towards 2.0 ROCs, as illustrated in the report available at the link.

So -- and for present purposes I am focusing on the statement that the main figure in each scenario represents the Government's central estimate, so just keep that in mind, please.

The second paragraph says:

[redacted]

We saw that in the table:

[redacted]

Then it says, and I think as Ms Davies suggested yesterday or the day before, I think this next bit contains typos, but it says:

[redacted]

[redacted]

2 [redacted]

3 The reason I say that must involve typos is because

4 £146 is not the central levelised cost estimate, it is

5 £144, and -- and I can show you the document if

6 necessary -- but £127 was not the central estimated

7 revenue for 1.75 ROCs, it was 1.38.

8 A. Yes.

9 Q. Then on page {ROC-E/138/14} of this document, if we

10 could zoom in on the second half of the page, please,

[redacted] you will see [redacted]

[redacted]

24 A. I mean, I would say that the EY figures were -- sorry --

25 the EY figures were an important input to the

Government's decision, and obviously a comparison between the EY figures. In other words, a cost estimate and the revenues would be an important input. The only caveat I would give, if you like, is that there are lots of important -- or there are a number of important inputs.

Q. My question is more specific than that. My question, or the point I am putting to you is that it is not just a matter of comparing cost estimates with revenue estimates from EY. Actually, it is comparing EY's base case cost estimate against the Government's central revenue estimate.

A. Well, I mean, I think when you look at the documents that lead up to the Government deciding on two, you do not see that calculation when you see the -- see the justification, if you like, in the State aid justification, obviously you do see that, and that is what we are looking at now, so there is a question of how much of the Government's actual decision-making process is reflected in the State Aid Notification.

Q. All right, but taking the State Aid Notification on its own, [redacted]

[redacted]

A. Taking the State Aid Notification as -- on its own, yes. I would not take it on its own.

Q. Thank you. The second point I wanted to put to you about this document is that the Government justified its decision to the Commission on the basis that central revenue at 2.0 ROCs, £149, was only marginally higher than base case cost. Can you agree with that?

A. Are those words that we have just seen?

Q. They are, yes.

A. Could we just go back to them?

Q. Yes. It is page {ROC-E/138/12}. It is the second paragraph. I am not just asking you to confirm that those words appear on the page, I am asking you to agree with me that the Government justified its decision to the Commission on the basis that central revenue at 2.0 ROCs was only marginally higher than base case cost.

A. I don't want to quibble but that does not seem to me like the Government is saying: this is the justification for our decision. They say this one is bigger than the other but they are both very uncertain. It seems to be mostly a sentence which is about the uncertainty.
I think if that was their core justification it would not just be the first clause of a long sentence, but again, this seems to me to be --

Q. Would you accept that it is part of the justification to set banding at two?

A. Yes I would.

Q. Thank you. Could we go down, please, to the [redacted] at tab 140? {ROC-E/140/1}.

THE CHAIRMAN: Could we perhaps aim to have a break in the next five minutes or so?

MR LASK: Yes. Of course, sir.

Could we go, please, to {ROC-E/140/5}? Actually, sorry, could we go, first, to page {ROC-E/140/2}? In fairness, actually, I apologise, we should start at page {ROC-E/140/1} so you can see the question. The question [redacted] is [redacted]

A. I saw it very briefly and then it jumped.

Q. I am so sorry. No. It is there. It is Question 4?

A. Oh, sorry. Okay. Yes.

This is a question that is not about the offshore wind banding, right?

Q. It is asking about compensation more generally, from what I understand.

A. I think --is it not asking about the -- so one of the other measures was to remove -- I am afraid I am a bit hazy on the details here, but one of the measures in RO

2010 was to remove a cap and that is what it is asking about?

Q. Yes. Not a lot turns on this, actually, because the answer I am going to show you is talking about the level of banding but I wanted to show you the question for context.

A. Okay. Thank you.

Q. Go back to page {ROC-E/140/2}, please, and you will see [redacted] in the middle of the page, a paragraph beginning [redacted] Do you see that?

A. I do.

Q. [redacted]

[redacted] etc, etc, and it mentions all the statutory factors that you are familiar with. Do you see that?

A. Yes. It does not mention all of them but it mentions many of them.

Q. Yes. Then at the end of this paragraph it says:

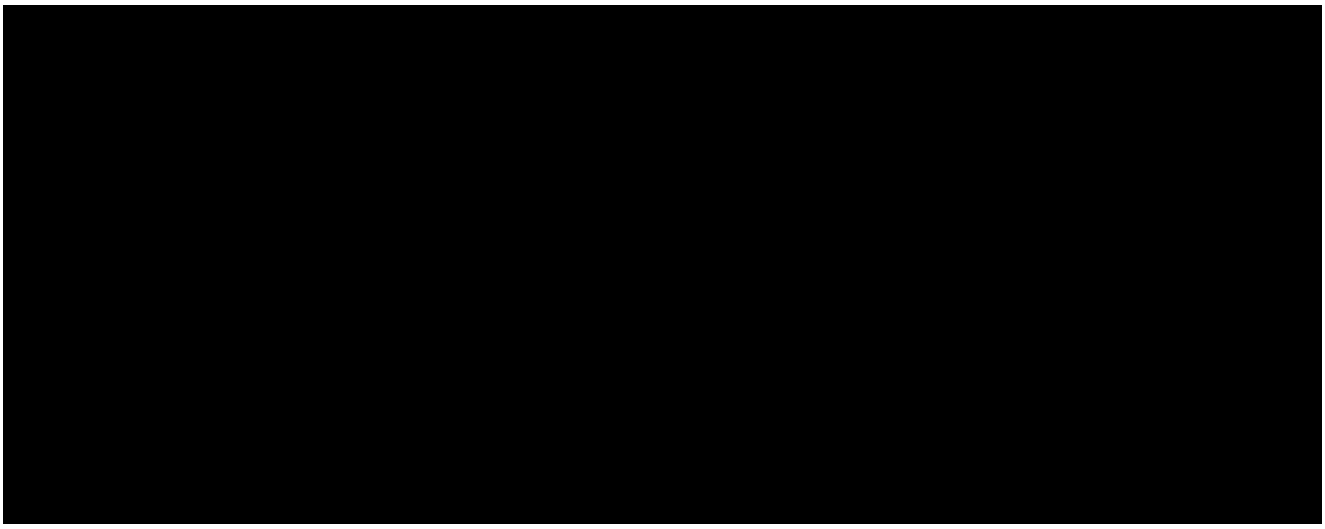
[redacted]

You see that?

A. I do.

Q. And then if we go back to page {ROC-E/140/5}, we see

[redacted]Question 11, and the [redacted]



So the Commission here is scrutinising the margin between base case costs of £144 -- I am talking about 2010 here. Leave aside 2015 -- it is scrutinising the margin between base case costs of £144 and the Government's central revenue estimate of £149; yes?

A. Yes.

Q. It is asking why it does not result in over-compensation; yes?

A. Yes.

Q. Could you read, please, the second paragraph of the Government's answer?

A. Do you want me to read it out loud?

Q. No, sorry -- well, if you just read it to yourself that would be easiest. Thank you.

A. Okay. (Pause)

Okay.

Q. So what the Government is doing here is in response to the scrutiny about the margin between £144 and £149, the Government is citing, among others, uncertainty. Do you see that?

A. I do.

Q. So this indicates, does it not, that the Government accounted for uncertainty in the estimates, in the cost and revenue estimates, by allowing a margin between EY's base case cost estimate and Government's central revenue estimate; yes?

A. I do not think that is how I would read it. I mean, I think if you are implying that the Government said, "okay, there is uncertainty and therefore we need to allow a certain margin" and they had some number in mind or they came up with a number that they thought would correspond to the level of uncertainty that they saw (cross talk).

Q. I was not going quite that far. Let me take it in stages. You would accept that, in fact, the two ROC decision provided for a margin between cost and revenue.

A. The two ROC -- I would accept that it -- that the two ROC decision led to -- well, it led to -- in the Government's estimates, the central estimate of £149 for revenue and £144 for costs and the difference between those two is what you are calling a margin, yes.

Q. Yes. There was a margin there or a gap. I do not mind what we call it.

A. I do not mean to quibble. All I mean is, if we are talking about the reality, that is a whole different situation because it is different for every wind farm and it is very uncertain and so on, but in terms of what they are putting on this page, absolutely, I agree with you.

Q. Thank you. So, you have accepted that, and you would accept that the Commission asked the Government about that margin.

A. Yes, and I suppose what they are saying is -- and maybe this is what you meant -- they are saying yes, there is a difference, but it is all very uncertain, and we feel that two is the right answer and that is what they say at the bottom of the paragraph.

Q. Your evidence is that there was significant uncertainty in the estimates; yes?

A. Yes.

Q. So you would presumably accept that the Government had to do something to account for that uncertainty when it was reaching its decision.

A. I would say that -- more than that, the very way that the Government would reach its decision -- that the uncertainty would be inherent in the way that it reached

its decision. It is not that it had a methodology and that -- if the Government had written down its methodology it would have had a section called "uncertainty", I would say something deeper than that, if you like.

Q. Again, I am not even going -- I am not going that far. All I am saying is given the uncertainty the Government had to take that uncertainty into account when reaching its decision. It had to do something to account for it?

A. I would say that -- maybe we are not disagreeing. I would say that the way that the Government arrived at its decision reflected the fact that there was a great deal of uncertainty.

Q. And what I am putting to you is -- putting those points together -- is that the obvious inference is that allowing for a margin between the base case cost estimate and the central revenue estimate was Government's solution to the challenges proposed -- the challenges posed by the uncertainty in the estimates.

A. That is where I think we are not really agreeing because I think what you are saying is, essentially, that although it is not written down, that in some sense the Government had a methodology, and if you were able to write that methodology down, there would be a section called "dealing with uncertainty" and in that section it

would say "we should allow a margin between the point estimate for revenue and the point estimate for cost to deal with the uncertainty", and my reading of the evidence is that the decision did not follow a specific methodology, that it involved balancing -- you know, balancing different factors, making trade-offs that there was not a methodology which started -- which involved comparing point estimates and then doing something to deal with uncertainty, so I do not think that I do agree with you as you have put it there.

Q. So the only thing that is written down that I am relying on for present purposes at least is this answer to the Commission's question, and what I am saying is that this answer suggests that the Government accounted for uncertainty by allowing for that margin between cost and revenue.

A. And I would say that what this answer tells you is just that when the Commission said -- you have shown us these point estimates, one is bigger than the other -- should we be worried about that, the Government said no, you should not be worried about that because it is all very uncertain and we have thought about it and we think that two is the right answer. I mean, it is a slightly vague answer, but I think the vagueness is -- in this case is what is written down on this page rather than what I am

saying.

MR LASK: If that is a convenient moment.

THE CHAIRMAN: Let us come back at half past please.

(3.24 pm)

(A break was taken)

(3.32 pm)

THE CHAIRMAN: Before you resume your cross-examination, Mr Lask, just an observation. I don't know if you are carrying on with a topic that we discussed a day or so ago -- we will give a good degree of latitude here, because this is a slightly unusual case where the expert opinion is informed by perceptions as to what Government was thinking at various times, so am I conscious that in the exchange, or the discussion that was just going on with Dr Moselle, what Dr Moselle was being invited to do was to express conclusions on what matters were important to Government and what figures were central figures and important figures and how -- what Government had in mind based on inferences from the documents.

Now, it is not entirely clear to us that all of those matters do need to be pressed with the expert in cross-examination as distinct from being made in closing submissions. That is not to say I am going to cut off -- we are going to cut off the line of questioning because of the situation we find ourselves in, but I

thought I might just mention that, just so that if you are feeling that from our perspective you feel the need to press Dr Moselle on these issues, the indication that I am giving you is I am not sure you do.

MR LASK: I understand that. It was really out of fairness to Dr Moselle that I wanted to put those points because they lead on to some questions that I am coming on to, but I take the point and that is a very helpful indication. Thank you, sir.

Dr Moselle, you have agreed -- indeed it is your evidence -- well, no, sorry, you have agreed, I think, that EY's base case cost estimate would have been lower in the counterfactual; yes? And in fact you have agreed that the range of cost estimates that we looked at in Figure 11 of the EY report would have been lower in the counterfactual. That was the first point we discussed; yes?

A. The 2.9 per cent, indeed.

Q. You do not suggest in your reports, or in the Joint Expert Memorandum, that the Government's revenue analysis would have been impacted by the Cartel, do you?

A. I do not.

Q. So it is safe to assume that those revenue estimates we were looking at in the State Aid Notification would have been the same in the counterfactual; yes?

A. I think it is, yes.
Q. Now, if costs were lower in the counterfactual, but anticipated revenues were the same, then the margin between the base case cost estimate and revenue at 2.0 ROCs would have been larger. That margin we were looking at would be larger, would it not?
A. Yes. It is just a matter of arithmetic.
Q. And we saw that in the factual the margin was £5 which equates to 3.47 per cent of costs; yes?
A. It was £5. Yes. I cannot promise you that is 3.47 per cent but I will take your word for it.
Q. Thank you. With costs -- with counterfactual costs of £139.80, which is your base case cost estimate, with counterfactual costs of £139.80 and revenue of £149, the margin would have been £9.20; yes?
A. Yes.
Q. And take it from me that that is 6.58 per cent of costs.
A. Very good.
Q. Now an increase from a £5 margin to a £9.20 margin is an increase of 84 per cent. Do you accept that?
A. That is -- I can even see that it is correct, yes.
Q. Do you accept -- I am sure you will -- that with costs of -- with counterfactual costs of £139.80, costs would be closer to the anticipated revenue at 1.75 ROCs which we know was £138, than it would be to revenue at 2.0

ROCs which we know is £149.

A. Yes. That is arithmetic, again.

Q. Thank you.

Now, you have not suggested, have you, that in the counterfactual the degree of uncertainty in the cost and revenue estimates would have been any higher?

A. No.

Q. Assume for present purposes -- and this comes back to the point we were discussing before the break -- but assume for present purposes that the Government did allow that margin to account for uncertainty. Just humour me on that for a moment. In the counterfactual there would have been no need, would there, for the Government to provide a larger margin between costs and revenue to account for uncertainty?

A. No, I think whatever the Government -- anything which the Government did in your account in order to deal with uncertainty would have been the same in the counterfactual, more or less.

Q. That includes, does it, allowing for a similar margin between costs and revenue?

A. I guess the issue is that -- are you asking me to assume that the only reason why the margin -- because there are two reasons why the £5 could be there, even in your account, or, actually, in your account I think you would

say the £5 could be there because of some combination of rounding and wanting to deal with uncertainty --

Q. Well, if we assume, as I have asked you to assume, that it is there to account for uncertainty, you have said there would be no greater uncertainty in the counterfactual?

A. Yes.

Q. I think you agreed with me that there would therefore be no need for a larger margin to account for uncertainty in the counterfactual; yes?

A. So -- I agree with that but I -- can I just add -- it follows from your assumption that the reason why the Government ended -- chose 2.0 -- that it -- it is a coincidence that it had a round number. In your -- sorry -- in your account, the Government said the LCOE is £144, £5 is the right margin to deal with uncertainty, add those together I get £149, and I do my revenue calculations and I find that that takes me to 2.0 ROCs per megawatt hour, so in your account, right or wrong, there is no -- the fact that it is a round number is a coincidence, and is not a consequence of the Government having a policy or a practice of choosing numbers within a 0.25 increment.

Q. Well, we are going to come on to rounding. My proposition is a more simple one, which is simply that

there was a margin. I have asked you to assume that it was there to account for uncertainty. I think you have agreed with me there would have been no need for a larger margin to account for uncertainty in the counterfactual, and the next proposition I wanted to put to you was that, actually, Government could have allowed a similar margin between costs and revenue in the counterfactual by awarding 1.9 ROCs rather than two.

A. I think that is -- I think that we are in agreement there because that is where I was coming to. If you ignore the Government's practice of rounding to the nearest -- to these 0.25 increments, then I agree with what you say based on the assumptions you have asked me to make.

Q. Thank you. Let us come on to rounding, because this is another one of your three contextual reasons for your conclusion on Question 2. Could we go, please, to Dr Moselle's third report at {ROC-D/7/49}? Could we zoom in, please, on paragraph 5.42? You say here that:

"The UK Government displayed a clear preference for using "round numbers" in setting the Banding Coefficients. By "round numbers" I mean numbers that are either whole numbers (i.e., 1, 2, 3, etc.), or can be expressed as a simple fraction (i.e., a fraction whose denominator is a small number such as ½ or ¼ etc.)"

Now, you do not suggest that the Government had any sort of obligation to use round numbers, do you?

A. No. I do not see how it could have an obligation. It was its practice and its explicitly -- explains why it adopted that practice.

Q. You say, and this is -- sorry, this is page 37 of the bundle, footnote 87 of this report -- you elaborate on your position on round numbers, and you say in footnote 87 that you do not think 1.9 would normally be considered a round number in this context, although arguably it is more round than, for example, 1.92. Do you see that?

A. I do indeed.

Q. And by "this context" do you mean the Government's decision-making on banding; yes?

A. At this stage I am not really sure what I meant by it, but it would be true in that context, yes.

Q. And you say you do not think 1.9 would normally be considered a round number. Would you accept that 1.9 might sometimes be considered a round number in this context?

A. I mean, it is just semantics, is it not. Some people might say yes, some people might say no and it would depend on the context, so if people had been saying "let us use three decimal places" someone else might say "no,

let us use round numbers, let us just go to one decimal place".

Q. Your opinion here is that 1.9 would not normally be considered a round number, so I am asking you whether you accept that it might sometimes be considered a round number because you say "normally".

A. I mean, I think I am agreeing with you, just maybe the only quibble is I am saying that there is not an exact definition, so it is somewhat in the eye of the beholder and some people might call it round and some people might not.

Q. I see. So -- but you are willing to accept that it is possible that some people involved in decision-making in this area might consider 1.9 a round number. Is that right?

A. Yes. I think so. I mean, I think -- yes. I do think so.

Q. Thank you. Could we go, please, to Mr McNeal's witness statement which is in Bundle C, tab 1, page 12? {ROC-C/1/12}. You see paragraph 35?

A. I do.

Q. "In line with the nature of the process I have described there was a strong preference within DECC for setting -- for the setting of the ROC banding level at round numbers (meaning no more than a single decimal point,

e.g. both 2 and 1.9 were possible, but not 1.93)".

Do you see that?

A. I do.

Q. It goes on to say:

"And I do not recall ever advising or considering advising ministers to set a non-round double decimal ROC banding", yes?

A. Yes.

Q. So he agrees with you that Government had a preference for round numbers, but according to Mr McNeal what the Government meant by "round numbers" was different to what you mean by round numbers; yes?

A. Yes. Well, certainly what the Government meant by the time that he joined the relevant bit of DECC, yes.

Q. Sorry, are you saying that this evidence only applies to the period after the 2010 process?

A. I think he is describing his knowledge and his knowledge, his personal knowledge begins after the 2010 process, so that is all I would say.

Q. Could we go, please, to page 5 of this witness statement, paragraph 19? {ROC-C/1/5}. You see he says, halfway through that paragraph:

"I cannot comment on the detail of the position during that time" by which he means the time before he joined. "I do not believe that the overall structure of

the regime in DECC's decision-making process would have been fundamentally different".

A. I do see that. I think there is a question of whether the switch from rounding to 0.25 to rounding to 0.1 is a fundamental difference in a decision-making process or whether it is a matter of detail, and I would suggest that is more a matter of detail.

Q. Were you here yesterday when he gave evidence?

A. Yes.

Q. And he did not suggest, did he, during his evidence, that the rounding practice changed during his time at DECC?

A. I mean, I am not sure if he needs to suggest it. I think we have -- sorry. (inaudible speech).

Q. Indeed, and he may have been, I would have thought, if that was the case being put forward by any of the aligned parties.

A. Sorry, I am a little lost in the questioning. Can you steer me --?

Q. I think I have taken that point as far as I can. There is going to be a different imposition between the parties on what Mr McNeal's evidence does and does not mean, but having regard to the Chairman's comment, it is probably not necessary for me to pursue it with you any further.

A. Yes.

Q. Could we go, please, to Bundle E, tab 12? {ROC-E/12/1}. This is a -- sorry, I picked up the wrong file.

[redacted] and if we go to page {ROC-E/12/11}, please? You see there [redacted]

A. I do.

Q. [redacted]

A. I do.

Q. [redacted]

A. I do.

Q. I think you accept that this suggests that at least at the beginning of the 2009 process Government was prepared to consider increments of 0.1?

A. Yes. I think I have this somewhere in my report.

Q. Yes. Thank you.

Go, please, to Dr Moselle's third report, {ROC-D/7/58}. You see you have Figure 8 there which

reproduces Table 5.1 from the Oxera report which was May 2007, and I think you say that this was one of the key reports that informed the Government's decision; yes?

A. Yes.

Q. Oxera used the cost estimates produced by EY to model a number of different banding scenarios; yes?

A. That is correct.

Q. And what we see here is six scenarios -- it is really five because 5 and 6 are combined -- but six scenarios each with a different way of grouping technologies; yes?

A. Yes.

Q. And you see that scenarios 3 and 4 both propose a banding of 1.6 for offshore wind; yes?

A. Yes.

Q. And there are also a number of other proposals for other technologies that use increments of 0.1; yes?

A. Indeed.

Q. So Oxera was also prepared at this stage to consider 0.1 increments; yes?

A. That is -- yes. That is what we see on the page.

Q. And then over the page {ROC-D/7/59}, you summarise Government's reasons for its ultimate decision in 2009 which did not use 0.1 increments; yes?

A. That is correct.

Q. You quote from the 2007 consultation document which says:

[redacted]

So, can we agree the following propositions: firstly, the final decision in 2009 only used increments of 0.25 or larger.

A. That is correct.

Q. Secondly, this reflected Government's decision to group technologies by reference to their stage of development, and so set support levels which reflected the general position of that group. That is what you say at 5.77; yes?

A. No. I say at 5.77 that the Government's preference for a small number of bands reflected the things you just said which is not quite the same as saying that the Government's preference for rounding reflected the thing in quotes.

Q. It is a small number of bands that produces an outcome of increments of 0.25 or larger, is it not?

A. It is, but the Government is explaining here why it has

chosen a small number of bands. Now, the fact is that its scenario with a small number of bands also involved increments of 0.25, but I do not think that the Government's explanation here is an explanation of why it is choosing 0.25. You could deduce that the same logic, or a similar logic, might have led -- might be why the Government chose 0.25, but it is not what they are actually saying.

Q. It is a product, is it not? So the Government here sets out its reasons for choosing five bands, and five bands only -- the five-band proposal only had increments of 0.25 or larger, so the ultimate use of increments of 0.25 larger was a -- you could call it a byproduct, or the ultimate result of the Government's decision, or the Government's reasons given here not wanting to make fine distinctions between different technologies.

A. I mean, sorry, I do not want to sound simplistic, but it is as if the Government bought a blue Mercedes and they explain why it bought the Mercedes, that does not explain why it bought a blue car.

Q. It is almost the inverse of that. What I am putting to you is that what we do not see here is the Government objecting to the use of more -- of smaller increments as a matter of principle or policy?

A. I do not think that in this quote the Government is

commenting on the use of smaller or larger increments at all. As I say, this is a discussion of why they chose --

THE CHAIRMAN: I just want to make sure I am understanding the point of difference between you. Let me play it back to you in my words, but obviously it is important that I hear what you have to say.

I think it is being suggested to you that small number of bands is a necessary consequence of having 0.25 or greater increments, and I think your resistance to the proposition is you could have a small number of bands by having one at 1.1 and one at 1.7. That would still be a small number of bands but with 0.1 increments in them. Have I captured the nature of your resistance?

A. I think that is correct, yes. So, the Government is explaining why -- so the Government says "we only want to have a small number of bands", but maybe I am just repeating back to you what you said to me, but that is not an explanation for why they want the 0.25 increments, and they could have had a small number of bands and not had 0.25 increments, so yes, I am not sure -- yes. I think that is all I can say.

MR LASK: What I was intending to put was almost the other way round --

THE CHAIRMAN: Then I misunderstood.

MR LASK: -- which is that the Government had certain reasons for wanting to go with the five-band scenario, and that scenario happened to include increments of 0.25 and above, so that is why we ended up with increments of 0.25 and above.

A. No, because I do not think the Government was restricted to the five-band scenario that it gave to Oxera, it could have chosen a five-band scenario with different increments, either before or after the Oxera report.

Q. But the reason it chose the five-band scenario was not because of an aversion to smaller increments, or at least -- you have presented no evidence to suggest that it was due to an aversion to the use of smaller increments?

A. Sorry, maybe I am a little lost. I do not think that I am suggesting that the reason that it chose the five-band scenario was due to an aversion to smaller increments. I think I am suggesting that -- it chose it because of the -- I am quoting what they are saying, really.

Q. I apologise for prolonging the point because I think, actually, that is common ground between us so thank you.

The third proposition is that insofar as it involved a change to the level of RO support, you understand that the 2010 decision was only concerned with offshore wind;

yes?

A. Yes.

Q. So the particular factor that ultimately led to these larger increments in 2009 was not in issue in 2010, was it?

A. Sorry, I feel like now we are going backwards. I do not think that it was the desire to group technologies that led to the choice of the large increment.

Q. Well, let me simplify it. The reasons that Government gave for its five-band decision which you quote in 5.77 of your third report, those reasons were not in play in 2010 because 2010 was only concerned with offshore wind.

A. That is correct, but -- and as I say this seems to be going backwards, but I do not think that those are the reasons -- that those reasons the Government gives which I am quoting at 5.77 are the Government explaining why it prefers large increments. It was explaining why they have chosen to only have a small number of bands.

Q. Sorry, my transcript ... (Pause)

Sorry Dr Moselle, just one moment. (Pause)

Yes. I think what you -- I think what you just said was that the reasons you quote at 5.77 -- you are not suggesting that that was the Government explaining that it prefers large increments.

A. That is right. It is the Government explaining why it

prefers to group the technologies -- now, the underlying reason could also be a reason why the Government preferred large increments, but that is not what they are explaining there.

Q. Not what they are saying. Thank you.

Could we go, please, to {ROC-E/49/1}? You will see [redacted] this is a [redacted]

[redacted] Have you seen this document before?

A. I have.

[redacted] Q. So this is during the [redacted]

[redacted]. If we go to page {ROC-E/49/2}, could we zoom in on the section headed [redacted], please? You see here a reference to the Commission's -- sorry -- let me just read it to you:

[redacted]

[redacted]

Would you agree with me that that is expressing ROC's -- well, it is expressing banding in ROCs per megawatt hour in that passage, rather than megawatt hours per ROC?

A. You mean the one-third or the one-quarter is comparable to the 1.5 for offshore wind, for example?

Q. Well, yes.

A. They are on that basis, yes.

Q. More specifically, one-quarter equates to 0.25 ROCs, and one-third must equate to 0.3 or 0.33 or, you know, however many decimal points is acceptable?

A. 0.3 recurring.

Q. Yes. 0.3 recurring. Thank you.

You say in your third report that the Government's preference for round numbers was even clearer in the 2010 process; yes?

A. I do.

Q. And you rely on this -- sorry -- you rely for this on a draft response, and I only say "draft" because we are not sure if it was sent, but I am not seeking to make a [redacted]point on it, a response from [redacted], and that document is at {ROC-E/141/1}. Do you have that?

A. It seems to be in front of me.
Q. Can you zoom in, please, on the red text? Yes. You recognise this as being the document that you --
A. Yes. This is the second round of responses, the red is what is being added to the first round, if I have understood it correctly. Yes.
Q. It is the new stuff. Yes. You see that in the red text, about two-thirds of the way down it says:

You see that?
A. I do.
Q. Now, you recall that the central cost estimate being referred to there is £144; yes?
A. Yes.
Q. And you accept at proposition 26 of the joint expert memo, we can go to it if necessary, that you accept that if the Government had been seeking to set banding mechanically so as to exactly match revenue to costs, the banding level would be 1.89.
A. Yes.
Q. That is obviously banding to two decimal places; right?

A. 1.89 is a number with two decimal places, yes.
Q. And we saw Mr McNeal's evidence where he said that that is not what the Government would do. It would never set to two decimal places; yes?
A. Yes, or he said that he would never recommend that to a minister, yes.
Q. So what this answer to the Commission in red text is not doing is it is not necessarily rejecting 0.1 intervals.
A. I am not sure I agree. So, it is saying "we do not want to be more precise than 0." -- no. It is saying "we do not want to be much more precise than 0.25".
Q. What it is objecting to is exactly matching banding to costs. That is what it says, and what I have put to you is that exactly matching banding to costs would involve banding at two decimal places. That is what is being objected to here?
A. I think you are saying that you cannot exclude from this that the Government would have said, okay, we could go to the nearest 0.1 but we do not want to go to the nearest -- to two decimal places, or whatever, and I suppose -- that is not excluded by that sentence, but if the Government had in mind, well, "we do not mind going to the nearest 0.1", then that -- it seems to me that that would be speculation, so I agree with you that it does not say "we will not go to the nearest 0.1", it

just says "currently we are at 0.25. We do not want to go to something which is much more precise" and it does not define what "much more precise" means, and I suppose if you want to put weight on the word "much" then you might say they might go to something which was more precise, but that --

Q. I was putting weight on the words "exactly match" and what that indicates, "exactly match" indicates that what is being objected to is a banding at two decimal places because exactly matching banding to costs is, I think as you have accepted, 1.89 ROCs.

A. I mean, I do not want to quibble but to be exact -- you could always be more exact, right? You could always go to three decimal places and five decimal places and so on.

Q. But you have accepted in the Joint Expert Memorandum that to exactly match revenues and costs would require a banding level of 1.89?

A. I think that -- then that is an imprecision. To match it to two decimal places would require 1.89. I do not think there is anything deep in this. It is obvious that you can always have more decimal places. As you know you just take a spreadsheet and you click on the top and more decimal places appear. I do not think that anything hangs on this but it would not be an exact

match to use two decimal places, it would be exact to two decimal places. What I meant is that that is as exact as you could possibly want to get.

Q. I think we have taken it as far as we can.

Let us look now at the 2013 process, please. If we go to your third report at {ROC-D/7/52}, and we see paragraph 5.55 where you say that banding was adjusted again in the 2013 Order. The 2013 Order started using coefficients that had 0.1 increments which was not the case in 2009, 2010. For example, in 2013 the coefficients for offshore wind and geothermal energy were set to gradually decrease from 2.0 ROCs in 2014/2015 to 1.9 in 2015/2016 and 1.8 in 2016/2017, and then at 5.59, over the page {ROC-D/7/53} you say:

"With regard to the specifics of the 2013 Order, while I do not have access to factual evidence for what caused the change, I think it is plausible that for offshore wind it reflected the need to reduce coefficients to incorporate cost reductions. The latter were relatively small and therefore the UK Government required a small decrement in banding. Put simply, the UK Government needed to use a number smaller than 2, but if the next number down was 1.75, following the intervals of 0.25 it had used in 2009 and 2010, but that was too low to be usable, so it had no choice but to use

a lower decrement, as I explain below".

Then you say but that does not contradict your preference for round numbers but what it does indicate, does it not, is that when faced with a cost reduction, Government was prepared to reduce the banding for offshore wind in increments of 0.1?

A. When faced with a cost reduction from year to year which, just to be clear, is different from a cost reduction between actual and counterfactual.

Q. Well, of course.

A. Yes I know, by definition, but it is -- yes.

Q. Yes, when faced with a cost reduction from one period to another period, it was willing to use 0.1 increments for offshore wind.

A. I mean, yes, it did, in fact, or it appears --

Q. You actually say it had no choice to use a lower decrement in 2013 because cost considerations required it to choose a higher figure than 1.75 but a lower figure than 2, but in the counterfactual where cost was at £139.8 on your case, Government would similarly have had no choice but to use 0.1 increments because cost would have been very close to revenue at 1.75, but some distance from revenue at 2 ROC, so it would have to do the same thing as it did in 2013. Is that not right?

A. I do not agree with that because, as I have explained in

my report, so I will not go into it in great detail, but I do not think that the Government made its decision on the basis of this kind of mechanical exercise involving the comparison of a point estimate of costs with a point estimate of revenues.

Q. Do you say that one of the reasons you do not think it would have used 0.1 increments in the counterfactual for 2010, do you say that one of the reasons is because of the uncertainty in the data?

A. Maybe -- could you take me to this?

Q. I am not suggesting you do say that. I am just asking whether that is your position.

A. Oh, do I think -- in other words, do I think that the uncertainty in the data would have -- so, as a general matter I think that when you are faced with very uncertain data, then it is natural to want to use round numbers, so the uncertainty in the data certainly would explain why you would use -- it would be one of the reasons why you would use round numbers. You would want to avoid spurious precision.

Now -- so that is a reason for using round numbers. Would it apply equally if they had wanted to round to the nearest one decimal place rather than the nearest 0.25? I guess it would, so -- sorry, now I have lost track of your question. If your question is do I say

that is why they would use round numbers, the answer is yes. If your question is do I say that that should lead you to conclude that they would choose 0.25 rather than 0.1, then I think that is probably a bit too strong, because I do not think that you can -- we know enough about the Government's thinking to draw that conclusion.

Q. Sorry, the transcript says that you -- suggests that you just said we know enough about the Government's thinking to draw that conclusion. Did you mean to say "we do not know enough about the Government's" --

A. I believe I even said we do not know.

Q. Thank you. I have reached the end of one topic and was about to start another but I -- it would be a natural place to pause?

THE CHAIRMAN: Well, let us pause there then please and let us come back at 10.30 tomorrow. Thank you.

Sorry, Dr Moselle, I am sure you heard me say to Mr Druce, please do not talk about your evidence over this break or indeed any break.

A. Absolutely.

THE CHAIRMAN: Thank you.

(4.12 pm)

(The hearing adjourned to 10.30 am on Friday, 23 May 2025)

I N D E X