
3RD WITNESS STATEMENT OF MARK ANDREW COCKBURN

I, Mark Andrew Cockburn, Director of Cambridge Economic Policy Associated Limited (CEPA), will say as follows:

1. The purpose of this supplementary statement is to provide further clarification in relation to several points which have been raised in the opening statements to the Independent Public Inquiry into the Non Domestic Renewable Heat Incentive (RHI) Scheme (the Inquiry). This statement is made by me in my capacity as a Director of CEPA and therefore reflects CEPA's corporate view on the matters set out below.
2. I make this statement in advance of my scheduled attendance on behalf of CEPA to provide oral evidence to the Inquiry. I note at the outset that the points I raise in this statement draw upon documentation that (i) we were not aware of until it came to our attention as a result of it being referenced in the opening submissions, or (ii) as a result of our ongoing review of materials disclosed to CEPA by the Inquiry. Please note that CEPA is still not in possession of all email traffic between itself and Ricardo-AEA, only emails disclosed to it by the Inquiry.
3. This statement is by no means intended to address all issues relating to CEPA's involvement in the development of the RHI for Northern Ireland which were raised in the opening statements; rather it is intended to address the following matters in a way which I hope may provide additional clarity to Counsel and the Inquiry in advance of my attendance, namely:
 - (a) CEPA's view on whether its 2012 addendum report should have, in hindsight, addressed the issue of tiering as expressed during my attendance at the Public Accounts Committee hearing on 23 November 2016;
 - (b) Clarification about the different roles and inputs of CEPA, Ricardo-AEA and the Department of Enterprise, Trade and Investment (DETI) respectively in relation to CEPA's 2012 addendum advice, as revealed by contemporaneous correspondence disclosed to the Inquiry;
 - (c) Ricardo-AEA's recommendation not to revise the biomass pellet price assumption, with the specific recommendation being to stick with the central pricing scenario for pellets;
 - (d) The internal email of William Rickett, CEPA's Chairman, which expresses a further view on the issue of tiering;
 - (e) The internal email of Kirby Owen, a former CEPA Non-Executive Board Member, which expresses further views on CEPA's involvement in the development of the RHI for Northern Ireland.

Tiering – PAC vs. subsequent statements

4. The opening statement of Mr Scoffield QC, Senior Counsel to the Inquiry, identifies that there is an apparent inconsistency, or retreat between the position I took with regard to tiering before the Public Accounts Committee (PAC), namely that CEPA regretted not advising on such in its 2012

addendum report, and the latter position taken in my subsequent statements, as partly reproduced below. Indeed, the transcript of proceedings in the Inquiry from day 7 records speculation that differences between the "attitude" of CEPA in the PAC and the "attitude" presented in statements to the Inquiry might be reflective of a more detailed examination of the background and issues. As recorded in the transcript of proceedings from day 2, Mr Scoffield QC considers that my evidence as presented to the Inquiry "represents something of a considerable retreat" from what I said in my attendance at the PAC meeting. I do not believe that I have retreated from any position that I expressed to the PAC, but for the avoidance of doubt I confirm that my views, as articulated to the Inquiry through CEPA's statements, have been refined as a result of a more considered review of CEPA's engagement as a consultant. I would also like to note that the statements presented by CEPA to the Inquiry have clearly articulated that all matters considered within them have been informed by CEPA's examination of the materials that it possessed and had reviewed at the time of preparing the respective statements. Ideally I would have caveated my submissions to the PAC meeting along similar lines, though I am confident that the timing and the circumstances of my attendance there made such matters implicit regardless.

5. I attended the PAC meeting on 23 November 2016 to present evidence about CEPA's involvement in the development of the RHI scheme. At that time the PAC had been undertaking its inquiry into the RHI scheme for a number of months. While CEPA endeavoured to undertake a re-examination of its engagements in the development of the RHI in preparation for the PAC meeting, I trust the Inquiry will appreciate that our review and our preparations were limited by time and by the availability of CEPA's internal resource. I note that I had only one month to prepare for CEPA's attendance at the PAC meeting and in the limited time available my team and I had to locate and review materials dating back to CEPA's last involvement with the RHI for Northern Ireland three years prior to the PAC meeting, and earlier materials dating as far back as CEPA's first engagement in 2011.
6. In the PAC meeting I was questioned by nearly a dozen members of the PAC (all of whom are or were politicians) about the RHI development work undertaken by CEPA. As is clear from the official transcript, the members' lines of inquiry focused heavily upon the extent to which tiering was a factor that had not been adequately investigated and/or reported on by CEPA in the course of its commission, particularly in the production of CEPA's addendum report advice in 2012.
7. While some extracts of my submissions at the PAC meeting have been selected and presented to the Inquiry by Mr Scoffield and Mr Lunny, I believe the most considered view I expressed in my attendance at the PAC meeting regarding tiering is found in my opening statement to the PAC, where I said:

In the addendum, we should definitely have raised the need for tiering of the small-scale commercial biomass band where subsidy exceeded the marginal fuel costs. This has negatively impacted on the value for money of the scheme, especially when combined with other contributing factors. However, in similar schemes, over time, a degree of incentive has been substantially reduced by regular intervention. We drew attention to the risks of setting the subsidy at the wrong level and the need for active monitoring and review.

8. While tiering was the focus, as the record shows, throughout most of my attendance at the PAC meeting, indeed to the exclusion of other matters which I believe contributed to the eventual failure of the RHI scheme, for the most part the lines of inquiry were not, in my opinion, conducive to any sort of meaningful dialogue or discussion. Simply stated, I believe that 'tiering' appears to be afforded disproportionate focus by the PAC members, and while I willingly stated at the outset of my attendance that CEPA ideally should have addressed tiering in its addendum

report, I was clear that the tiering issue is nuanced and there were wider missed opportunities which contributed to or caused the scheme's failure. I note that the Inquiry itself has brought to light other issues which I was unaware of at the time, not least the failure to incorporate a suspension mechanism into the NI RHI in 2012, in spite of Ofgem's explicit recommendation to do so. There have been many other issues that have also come to light since my PAC appearance, which could potentially have had an impact on my analysis and understanding, had I been aware of them at the time. Other such issues, which are set out in greater detail below, include the engaged nature of DETI, the narrow scope of our addendum work, the respective roles of Ricardo-AEA, DETI and CEPA.

9. In my submissions to the PAC, I did however, also make the following points, which I have subsequently built upon:

We also made recommendations on the rate of subsidy to be used in an RHI. We made the obvious point that an RHI had not been tried before and so was subject to considerable uncertainty, especially the risks of setting the subsidy too high or too low. Given that, we recommended that there should be regular monitoring of a sample of installations to ensure that scheme rules were followed, that flows of subsidy to particular technology should be specially looked out for and that there should be a periodic review to ensure that it was meeting its objectives with a first formal review after two to three years.

We repeated our recommendation that biomass prices and subsidy rates should be regularly reviewed and specifically pointed to the risk of a new 20 kW to just less than 100 kW biomass band being gamed.

What I would put on record here is that the Department was very engaged with the work that we were doing. It was a very engaged client and commented extensively on different drafts that we produced. If issues came up or officials did not understand something, they would come to us a lot of the time and we would try to explain it to them.

Tiering was not brought up as an issue for us. We were asked to look at banding specifically — not tiering — and at the level of the tariff. What I am saying is that, even though we were not specifically asked to look at it when we recalculated the tariffs, it should have come to our attention that the level of the tariff was such that it increased in such a way that tiering was applicable.

If you are talking about impact, this was sitting for three years or so and was never noticed. When it comes to blowing budgets, tiering and the margin of attractiveness, as it increased over time — we are talking about 0.7p a kilowatt marginal difference — did not seem to have much of an impact then. Downstream, that grew. Other factors came in, such as multiple installations, a combination of those factors, and a lack of active monitoring, and, basically, the value for money was much reduced. Blowing the budget is about budgetary control and being able to close the scheme down very quickly.

Ultimately, any model, however sophisticated, can be only a certain representation of reality, and unless you end up with big black boxes, you tend to try to simplify it as much as possible. This was already quite a complex model. It worked within a budgetary cap; we assumed there would be a cap. The model was developed to tell you how much heat output you can get from the amount of subsidy provided, given some of the specific assumptions you put into it on tariffs and what the engineers assume is the likely type of office or whatever in Northern Ireland that would be switching.

I think I need to make something else clear here. This was being done under quite large considerations of uncertainty, with a number of different technologies and a number of assumptions that had to be made. I know everybody is thinking that tiering has come up as a big issue, but I can tell you that, at the time, there were a lot of different considerations about the different technologies. It was not as though people were saying, "We must remember tiering". Tiering came into things, as I said, when we were halfway through developing the project. As a result of that, we looked at the issue, worked out from DECC's 2011 impact report why it was using tiering and applied the principles. As I said, at that time, tiering was not required. However, we adapted our model to have a tiering function. That model was provided to DETI along with a guide, which mentions that you can switch on a tiering function.

If our recommendations had been followed and the scheme had been reviewed, there would not have been any loss. You are picking on a particular point about a recommendation on tiering. There are also a large number of recommendations about active monitoring and review. All these schemes have been changed massively. Basically, whatever you put out there, people will game it; they will find ways of maximising the benefit to themselves. You cannot just set something up and expect it to look after itself. You need to be on top of it. You need to react to the different things.

10. Noting my comment to the PAC that the value for money of the scheme was negatively impacted by the subsidy exceeding the marginal fuel costs, a discrete point I wish to reiterate to the Inquiry, (which I had not identified prior to the PAC meeting), is that the average Northern Ireland RHI payments for single boilers only began to diverge from the Great Britain RHI average well into 2014. The divergence therefore occurred well beyond the point at which a formal review should have begun, which represents in my opinion a further missed opportunity. An additional discrete point which I had not identified prior to my attendance at the PAC meeting, is that the 'gaming' of capacity through RHI beneficiaries' use of multiple lower-capacity boilers – which also occurred in Great Britain where tiering had been implemented – was a much more significant cause of the Northern Ireland RHI's failure. An additional missed opportunity was the failure to follow through with introducing a suspension mechanism after this had been publicly consulted on by DETI in 2013.
11. Subsequent to my attendance at the PAC, and having been issued notices under section 21 of the Inquiries Act 2005 by this Inquiry requiring the production of written evidence, I have now had a more extensive opportunity to re-examine the material relating to CEPA's involvement, and with the benefit of more time and greater resource. I have consequently reached a more considered view on the impact of tiering not being expressly addressed in the addendum report. Additionally, given CEPA's status as an enhanced participant in the Inquiry, I have also had the benefit of reviewing materials disclosed by other participants in the Inquiry, which again have significantly enhanced CEPA's understanding of the factual background. CEPA's more considered view of the impact of tiering, as well as other matters, is a matter which is, I believe, fairly acknowledged in my subsequent written statements to the Inquiry, which provide:

2.9.24. Consideration of a tiered tariff was not a part of the agreed tasks conducted as part of the 2012 Addendum and was never asked about with regard to biomass at any point subsequently. Neither would it have been appropriate for CEPA nor [Ricardo]-AEA to provide the detailed advice and the risks associated with providing advice on an issue that was outside of scope than therefore not being paid for. It is regretted that the potential need for a consideration of tiering was not identified at the time. However, given the time that had elapsed since CEPA and [Ricardo]-

[Ricardo]-AEA had worked on the issue, in comparison with DETI which was fully aware of the need for tiering and had continued to work on RHI issues, the latter was in a much

better [position] to spot this need than CEPA. It is also possible that for its own reasons DETI determined that it did not want to introduce tiering for biomass at that time, which as scheme owner it was within its rights to do so.

2.9.25. Tiering was therefore never not recommended in the 2012 Addendum, as CEPA was never instructed to address it. As has been set out, the 2012 Addendum involved a limited number of tasks, on an extremely limited budget, undertaken some five to six months after the original work, in what was a completely new area for CEPA. At the time there was no track record of such a scheme operating; ultimately it comprised a number of assumptions, some which were realised by events and others which were not (across both GB and NI schemes). Whilst as we have previously publicly stated, CEPA did not spot that tiering was most likely needed at the time – albeit by a relatively small margin given that the tariff was not likely that much greater than variable costs – it was out of scope with CEPA being specifically directed by DETI to calculate a single tariff.

12. I continue to believe that with the benefit of hindsight (whilst noting that DETI were conscious of the risk) that CEPA would have brought the need for tiering to DETI's attention in our 2012 addendum work, irrespective of whether or not it was within our precise scope. DETI would then have had to make a choice as to whether it was introduced and if so, at what level. There may then also have been a discussion as to whether it was within CEPA and Ricardo-AEA's scope to provide a recommendation on the level of a Tier 2 tariff. However, that does not detract from my view that CEPA's addendum work was a discrete instruction, which was the subject of negotiation given the limited budget available, to revisit 'banding' which was produced in response to selected submissions that DETI had received; in those circumstances, reconsidering whether tiering was necessary, although perhaps ideal, was beyond the scope of our instruction. In addition, we note from Peter Hutchinson's initial statement that if tiering had been introduced at the time, it was something that might have had to be taken out later, if tiering had been perceived to be a barrier [WIT-06192]. This is perhaps reflective of the problems faced at the time in making a judgment on what level of incentive was required, especially where the GB biomass arrangements appeared more generous than those in NI.
13. Beyond the immediate issue of tiering, I have also carefully reviewed background material and have elaborated in my statements to the Inquiry upon the issues related to the risk of gaming of the capacity bands and the need for periodic review, especially of biomass prices, both of which CEPA covered at various points in the 2011 report and / or supporting addendum.

Clarification on the roles of CEPA, Ricardo-AEA and DETI

14. DETI's engagement of CEPA and Ricardo-AEA in respect of the 2012 addendum work was a discrete instruction to revisit banding and undertake specific listed tasks. It was not an instruction for CEPA to work back through the highly detailed and complex work of 2011, in which tiering and other matters were considered. Given this complexity this would have been a considerable task: revisiting tiering and all the other conclusions we had reached in 2011 could have led to other knock on impacts. I am confident that DETI knew that the work commissioned was limited and in my opinion, given the diligence it had showed during the course of the 2011 work, should have ensured that any such inconsistencies and possible knock-on effects, which their consultants were not asked or paid to revisit, were adequately reviewed for inconsistencies and secondary impacts. I would note that at any point either at the time of the 2012 addendum or subsequently, had CEPA been asked to clarify or confirm the absence of tiering point for biomass, as a minimum, we would have gone back to the model and identified the need for it. Moreover, both the 2011 report and 2012 addendum should have been reviewed against the 2012 scheme rules to see if this gave rise to any additional risks (something which again fell outside of CEPA and Ricardo-AEA's remit). For instance, whereas the 2011 work assumed a fixed budget, the scheme rules did not make such an assumption.

15. In respect of the 2012 addendum work that was commissioned, and having regard to examples of correspondence available in the evidence disclosed to the Inquiry by different witnesses, the following points are in my view clear:
- (a) Ricardo-AEA handled much of the renewable technology costs and issues, whereas CEPA was largely focused on updating the model. From CEPA's perspective, on the renewable technology and market related aspects of the work, our role was largely mechanistic [CEP-47271]. Whilst DETI clearly wanted to maximise its output from its engagement of CEPA; CEPA wanted to limit its involvement as much as possible, partly because CEPA was mindful that its previous engagement in respect of the RHI scheme for Northern Ireland had required input from CEPA which was far greater than what had been originally anticipated, and in any event not beyond the terms of what we agreed to provide. Where we provided our own views was largely in terms of impact on the gas network (although the model changes triggered a tiering issue in the case of GSHPs which was subsequently dealt with).
 - (b) CEPA pushed back on DETI because of the limited scope of our engagement when we were asked to rerun the model with 15% return and on the provision of the model. In my opinion, this demonstrates CEPA's desire to limit our commitments and risk exposure by ensuring that our provision of support was within the scope of what CEPA had agreed to undertake.
 - (c) I note that Peter Hutchinson and Fiona Hepper both state in their evidence that because CEPA had brought up tiering in the context of GSHPs, they took comfort that tiering was not necessary in the case of biomass; or that the expression of tiering in the context of GSHP equated to the exclusion of tiering in the context of biomass. In my opinion, DETI's omission to enquire on the point specifically [CEP-46829] is inconsistent with the degree of engagement shown in relation to other issues. In my opinion, another credible explanation as to why the point was not queried (if indeed it was considered) is that the need for tiering would have made biomass less attractive.
 - (d) Peter Hutchinson of DETI played an engaged role throughout CEPA's involvement which is evident in his diligent correspondence on technical and mechanical matters.

Ricardo-AEA's recommendations about biomass and GSHP banding

16. As a result of receiving the most recent witness statement bundle, I am now aware from reviewing WIT-110810 that for the 2012 addendum CEPA followed the recommendation of Ricardo-AEA not to revise the biomass pellet price assumption, with the specific recommendation being to stick with the central pricing scenario for pellets. As a result of this, biomass prices were not changed which reflects the fact that as regards this task, CEPA's addendum was focused on running the model, while Ricardo-AEA was tasked with market research.
17. Through the model, CEPA did identify the GSHP tiering issue at an early stage, but as I have set out, CEPA did not specifically address it in the addendum report in the case of biomass; it did not address the fact that the inclusion of ongoing 'hassle cost' had triggered a tiering flag in the model.
18. While tiering of GSHP was relatively straightforward to deal with, there are much greater complexities associated with determining an appropriate level of a Tier 2 tariff in the case of biomass. While there is a single electricity price, in the context of biomass there are key complexities in determining the tier 2 tariff. For example, whether to reference to biomass pellets or chips (complexities set out in CEPA's second witness statement), and relating to the need to take account of pricing trends and locational differences in price. The identification of an appropriate biomass pellet price to be applied in the setting of a Tier 2 tariff, was an area more within Ricardo-AEA's competence than CEPA's, although it would have been complex for Ricardo-

AEA too, given the range and apparent volatility of prices. In any event, given this and as was clearly addressed at a number of points throughout our engagement, ongoing monitoring of biomass prices and load factors in applications was required, in order to assess the on the ground impact of the subsidy.

View expressed by Mr Rickett

19. In his opening statement to the Inquiry, Mr Lunny identified an extract from an email from CEPA's Chairman, Mr Rickett, sent in advance of my attendance at the PAC. The following extract is quoted from the email in Mr Lunny's opening statement:

it concludes that tiering is not necessary on the grounds that incremental fuel costs will exceed the subsidy levels without at the same time explaining the risks if this is not the case.

20. Later in his opening statement, Mr Lunny elaborates that the above extract from the email of Mr Rickett is relevant to what happened in 2012 because it is possible that if a greater explanation of tiering had been provided in 2011, DETI may not have missed the need to introduce tiering.
21. The comment was made prior to CEPA's fuller considered examination of all the documentation and material relevant to the issue, which commenced as a result of CEPA being asked to submit evidence to the Inquiry. While Mr Rickett's email identifies that CEPA's addendum report did not expressly advise on risk of fuel costs exceeding subsidy levels, for which tiering would provide one possible safeguard, it does not analyse this issue further, nor does it provide a carefully detailed review of the issue.
22. Indeed, an important and material factor which Mr Rickett was not aware of at the time of writing the quoted email is that DETI had equal access to the 2011 Department of Energy and Climate Change (DECC) impact report as CEPA; and was therefore (or at least should have been) conscious of the perverse incentive risk addressed within it. In fact, Peter Hutchinson of DETI emailed [CEP-33937] the policy document that the impact report supported to CEPA. Again, the "perverse incentive" discussed within it was brought to our attention. At the time of writing his email, Mr Rickett would not have been aware of this (although in 2011 – over five years earlier – he too had looked at the DECC report forwarded to CEPA by DETI).
23. Finally, I would like to note that Mr Rickett's opinion, despite being broadly reflective of CEPA's understanding of the issue at the time it was written, was expressed as an internal email between colleagues; while it is fair to give it some weight in ascertaining the progression of CEPA's own understanding of the issues, it is by no means a reflection of CEPA's best collective understanding of tiering, not to mention the wider context in which the RHI was developed.

View expressed by Mr Owen

24. In his opening statement to the Inquiry, Mr Lunny submits that the Inquiry might want to consider, among other things, the analysis contained within Mr Owen's email to Ian Alexander of 16 November 2016, noting such was prepared in the context of CEPA's preparation for the PAC. The following extracts of Mr Owen's email were drawn to the attention of the Inquiry Panel in Mr Lunny's opening statement:

Turns out that the first report (2011) wasn't all that bad at all, but whomever did the redo (2012 and it wasn't Paget; not sure who did it) missed completely (or skated over) the fact that in the 2012 recommendations the subsidy value per kwh was greater than the fuel cost per kwh. In the 2011 report, there was a clear statement that "tiering" (i.e., creating what amounts to a two-part tariff for the subsidy scheme) wasn't necessary

because the subsidy/kwh level was indeed less than the fuel cost. But that situation reversed in the 2012 report and – foolishly -- whomever wrote it ignored (or didn't understand) the stated logic in the 2011 report. The result was once the subsidy scheme was introduced as in the 2012 report, indeed after a couple of years people were heating empty barns because you could make a financial profit on the whole thing, even if you just vented all the heat.

It's a true problem -- a truly bad recommendation on subsidy design. Even with a generous (or overly-generous) subsidy level / amount, better (er, proper) design would have stopped the problem that emerged.

25. While the view expressed by Mr Owen, who is a former Non-Executive Board Member of CEPA, does not reconcile with the view I have expressed regarding the issue of tiering, I wish to make some additional points in advance of my attendance in order to put Mr Owen's email in context.
26. As to the context of the email itself, while Mr Owen's email might express his personal view, which was in summary that tiering ought to have been revisited in the 2012 addendum report, it is not a view which I believe has been reached following a detailed and fully informed examination of the circumstances under which the 2012 addendum report was produced. In particular, I note his conclusion that even with a generous subsidy level, better design would have stopped the problem that emerged, which disregards the context of the work CEPA was engaged to complete and indeed the advice which was given. However, Mr Owen was also unfamiliar with the price assumptions given by Ricardo-AEA, the directions given by DETI, the mutually-cohesive nature of the 2011 report and the addendum, and the detailed instructions and advice given to DETI on audit and review.
27. Secondly, as I have acknowledged on behalf of CEPA with the benefit of hindsight it would be ideal if tiering was revisited in the 2012 addendum. Had there been a specific reference to tiering in the scope of work there would have likely been less chance for it to be missed. Mr Owen's view that the issue was 'skated over', which to me implies that tiering was an obvious point which was envisaged within the terms of instruction, is ill-informed and presents a mischaracterisation of the circumstances. In fact, the email represents a member of staff, with half the facts, giving an "off the cuff" view to another member of staff.
28. While Mr Lunny has described Mr Owen's view as an "analysis", which in my opinion affords greater weight to the views than I believe they were intended to have had, it is important to note that the views expressed do not under any circumstances represent the view of CEPA neither at the time nor presently.

Statement of Truth

I believe that the facts stated in this witness statement are true.



Signed:

Dated: 28 November 2017

Mark Andrew Cockburn