

Meeting of the ETS WG held virtually on 9 February 2021

Attendees

Bill Thompson	Co-Chair	David Morgan	CPI
Lucy Candlin	Co-Chair/P&P	Amanda Pakes	BSI
John Craven	ETG Secretariat	Andrew Park	Swan Energy
Anne-Marie Ferguson	ETG Secretariat	Paul Parker	LRQA
Frank Aaskov	UK Steel	Paul Pearcy	British Glass
Tom Bardwell	SE	Graeme Precious	SLR Consulting
Bryan Bateman	CPI (WG Vice Chair)	Paulomi Raythatha	SGS
Paul Batty	BEIS	Louis Redshaw	Redshaw Advisors
Jim Beynon	Catalyst Commodities	India Redrup	Energy UK
Geraldine Bolton CBM		Matthew Reizenstein	Shell
Diana Casey	MPA (WG Vice Chair)	Andy Roberts	UKPIA (WG Vice Chair)
Sarah Catmull	P66	David Robinson	Lucideon
Claire Chaffer	Jacobs	Steve Roebuck	WPIF
Henry Clifford	Dairy UK	Julian Ross	E.ON
Sam Coupland	BP	Jane Roughley	RWE G UK
Richard Coey	DAERA-NI	Jonathan Spence	Uniper
Joe Cooper	BEIS	Nicola Steen	Redshaw Advisors
Martin Cousins	ExxonMobil	Matt Streeter	EDF Energy
Tim Cowling	Tarmac	Iain Summerfield	Kiwa
Matthew Croucher	SMMT	Jill Talbot	P66
Paul Dawson	RWE	Jane Thornback	CPA
Henry Dieudonne-Demaria	BEIS	Fiona Walker	HPF
Phil Elliot	DAERA-NI	Naomi Walker	EA
Holly Feeney	British Glass	Anne-Marie Warris	ETG hon Fellow
Adrian Fitzpatrick	DAERA-NI	Simon Watson	Redshaw Advisors
Joan Forteach	EA	Iain Weatherall	EA
Anthony Finn	Conocophillips	Will Webster	O&GUK(WG Vice Chair)
Seamus Gallagher	BEIS	Emma Vinter	SE
Janet Gascoigne	UKAS	Eileen Wang	HM Treasury
Arjan Geveke	BEIS	Simon Wood	UKPIA
Aaron Goater	CCC	Rich Woolley	CIA
Nicola Herschell	SLR Consulting		
Martin Hills	Cemex		
Martyn Kenny	Tarmac		
Joel Kenrick	BEIS		
Alastair Kerr	WPIF		
Bill Kyte	ETG hon President		
Bob Lewis	Tata Steel		
Jude Lemmens	Tata Steel		
Charlie Lewis	BEIS		
Tom Lord	Redshaw Advisors		
Jodie McDaniel	British Steel		
Andrew McDermott	BCC (WG Vice Chair)		
Philip McNaughton	British Sugar		

Welcome, competition law reminder and introduction; agreement of the agenda

1. Bill Thompson EU ETS WG Co-Chair (Policy) welcomed those attending and reminded attendees of ETG competition policy. The agenda was agreed as tabled.

ETS WG Co-Chairing arrangements for 2021 – Bill Thompson and Lucy Candlin

2. Bill Thompson noted that although the position of ETG ETS WG Co-chair (Policy) was up for election by workgroup members, no member had notified their interest in it to John Craven (Head of UK ETG Secretariat). Bill Thompson therefore put the following arrangements (previously circulated to ETS WG members) to the meeting:

- Bill Thompson would continue in the position of co-chair ETS WG for Policy for a period of 12 months.
- To ensure issue coverage in detail, he would be supported by the following members who had agreed to assist in the preparation of the WG agenda, and as subject matter leads during WG Meetings:
 - Will Webster - post 2030 UK Carbon Policy
 - Dr Andrew McDermott - Border Carbon Adjustment Policy
 - Dr Andy Roberts - EU ETS Phase 4 current Policy and Policy review
 - Dr Diana Casey - UK ETS Policy
 - Bryan Bateman - International Issues
- Coverage and leadership of the ETS WG would be reconsidered by WG Members at the end of 2021 - which also coincided with the expiry of the mandate of Lucy Candlin as co-Chair (Technical and Administration).

3. The meeting approved the arrangements; no members present expressing objection.

Minutes of EU ETS WG meeting held on 15 December 2020 + Actions

4. The minutes of the 39th EU ETS WG meeting on 15 December 2020 were agreed as an accurate reflection of the discussion by meeting participants. John Craven noted that actions were complete or would be addressed under current agenda items.

UK ETS and EU ETS

EU ETS completion – update: Seamus Gallagher BEIS: to include Indirect Emissions Compensation - Arjan Geveke BEIS

EU ETS completion – update

5. Seamus Gallagher presented the slide headed ‘EU ETS completion’ in the BEIS slide pack (Annex 1 - circulated to ETS WG members). There were no questions.

Indirect Emissions Compensation

6. Arjan Geveke reported that BEIS had decided to extend the compensation schemes for the indirect emission cost due to the UK ETS and carbon price support by another year to financial year 2021/22 and the House of Commons had approved this. Finance had been secured in the spending review. The extension allowed time to review the schemes now that there was more clarity about UK-EU trade agreement. The schemes would roll-over and eligibility and the variables in the formula to calculate the level of compensation would stay the same, with only the CO₂ emission factor being updated, reducing from 0.58tCO₂/MWh to 0.446tCO₂/MWh,

based on the latest statistic in DUKES. The review would involve a formal consultation aimed to be published in April. In response to questions from Bill Thompson and Bob Lewis, Arjan Geveke added that the UK arrangements would use similar methodology to the EU schemes - but based on UK sector data - and that payment under the rolled-over schemes would start on 5 April 2022.

Environment Agency Report – Joan Forteath EA

7. Joan Forteath gave the presentation at Annex 2 (circulated to ETS WG members) by way of an EA report. She noted that the approach to submitting annual activity level reports had been sent out in a newsletter the previous week – with a request that any enquiries about reopening the reporting function in ETSWAP be directed to the help desk, Joan Forteath also referred to the ongoing requirement to achieve compliance with Phase 3 of the EU ETS and that operators would continue to use the UK administered section of the Union Registry until 30 April 2021. Work was complete in converting old permits to the UK ETS and issuing variations.

8. Annual Activity Level reports for both 2019 and 2020 should be submitted via ETSWAP by 30 June 2021; the ALC report can be submitted with the annual emission report for 2020 if ready before 31/3/21 or separately afterwards. This should allow time for operators to submit these reports first to their verifier and then by 30 June to the regulator. SEPA flagged that since their help desk facility had been the subject of a cyber-attack at the end of 2020, access to it was currently suspended. In the meantime, operators should post any urgent queries to SEPA via its website.

9. The following main points arose in discussion. Alastair Kerr noted that although Joan Forteath had mentioned that all old permits had been converted and variations issued, his organisation was aware of at least one company where the revised permit had not yet been received. Joan Forteath offered to follow this up if Alastair Kerr could get in touch. In response to a question on access to the Union Registry, and the number of working days to set up a Trusted Account, Joan Forteath has asked (in a later note) for members to contact the EA helpdesk for advice – etregistryhelp@environment-agency.gov.uk

10. Jonathan Spence asked whether the issue of the effective dates of UK ETS permits being the same as EU ETS permits would be resolved soon since this had caused problems with verification. Iain Weatherall responded that he understood that the issue arose because of a fault in ETSWAP whereby when the EA did batch reissue of permits the system was not picking up the date of that permit – 1 January 2021 - and instead continued to show the effective date as the previous one. This appeared both on the permit page of ETSWAP and also the annual emissions report. Jonathan Spence added that the section asked if there had been any variations - and verifiers took different approaches in response - so it would be helpful to get the issue resolved. It was agreed that some guidance should be sent to verifiers to provide clarity as to as to how to treat this and avoid unnecessary comment. – **Action EA.** Later note: Guidance has been included in the Newsletter published on 12 February.

11. David Robinson asked how verifiers could check if the data imported into Sheet C was from the correct version of the baseline template as some may have been updated after the initial verification. Had there been a communication to operators by the regulators to confirm the HAL or reference to the NIMs baseline template? Iain Weatherall responded that the regulators had accepted that there could be amendments to data following verification and that

there could be agreement between the Operator and the Regulator as to the final data as amended. In reply to a supplementary question from David Robinson as to whether there would be a clear audit trail, it was suggested that this could be established via correspondence. Lucy Candlin asked whether it would be possible to attach a final version to the permit in ETSWAP in the same way that procedures etc were uploaded, or whether the new ETSWAP would have a facility for the documents to be attached. Iain Weatherall said that whilst attaching a final version to the permit could be considered, in practice it would entail amendment to a large number of permits. On the ETSWAP replacement he responded that a facility to attach the documents could potentially be considered by the developers as part of the ongoing process of integration and improvement across the totality of permitting, monitoring and reporting. Later note: Some guidance has been included in the Newsletter published on 12 February.

12. Naomi Walker noted that a verified with comments opinion was still a positive opinion. The inclusion of comments had a variety of purposes, not least to bring things to the attention of the regulator. However, in the light of further observations by Amanda Pakes, Naomi Walker added that it may be necessary to update part of the template. – **Possible action EA.** Later note: Some guidance has been included in the Newsletter published on 12 February. The issue has been noted for future updates to the verification template.

13. Tony Finn asked whether the AAL template would be sent directly to operators – or should they pick it up via the link in the recent Newsletter? The EA responded that the template would go direct to operators. In response to Bob Lewis, Naomi Walker confirmed that the need for the recent circulation of a revised AAL template had resulted merely from a minor issue. Later note: Some guidance has been included in the Newsletter published on 12 February.

14. Bob Lewis asked whether it was planned to have the AAL report verified before 31 March 2021. If so, that would include the AAL template attached in the AEM report which could then be submitted to the verifier. Would that mean that the separate verifiers opinion report (as recently circulated via email) would be included by the verifier within the returned and verified AEM report in ETSWAP or would this be received separately by the operator in an e-mail? If the latter, how should the operator then deal with that verifiers report - would it be a separate task in ETSWAP to upload or would it be necessary to request the return of the AEM so it could be included alongside the AAL report? It was confirmed that the Operator would upload their template to the relevant page of ETSWAP before the end of verification (although it could be shared with the verifier outside ETSWAP during verification if necessary) and then when the AAL report was finalised and uploaded, the verifier would upload their verification report template to the relevant page of ETSWAP and send back to the operator within ETSWAP for final submission to the regulator. Later note: Some guidance has been included in the Newsletter published on 12 February.

15. Paulomi Raythatha asked whether the AEM on ETSWAP could be returned on request by the operator before the 31st of March 2021. Some operators had completed and submitted verified reports in order to comply with the 31st March deadline but they may now be ready to complete ALC reporting. In this case could the operator request return of the report? Iain Weatherall responded that EA planned to collect them all in by 31 March if possible to facilitate compliance tracking for the AERs, and then reopen the ETSWAP reporting workflow after 31/3/21 – but they were open to any comments. Later note: Some guidance has been included in the Newsletter published on 12 February.

16. Bryan Bateman noted that the previous ETSWAP had been the subject of consultation with users before it was finalised, albeit that it had remained somewhat ‘clunky’. Would the new

ETSWAP be the subject of consultation to ensure that earlier ‘clunks’ were ironed out? Bob Lewis commented that he had participated in several team calls with BEIS about redesign and a number of verifiers had also been involved in that process. Many improvements had been introduced.

UKAS report - Janet Gascoigne

17. Janet Gascoigne gave the UKAS presentation at Annex 3 (circulated to ETS WG members). On the ISO changes noted in the presentation she said that although UKAS would be issuing communications about the transition/migration shortly, she would be happy to reply to emails should there be any questions.

EUA & UKA Market commentary – Louis Redshaw, Redshaw Advisors

18. Louis Redshaw gave the presentation at Annex 4 (circulated to ETS WG members), by way of a personal EUA & UKA Market commentary. He particularly flagged his views set out in the final two slides headed ‘The UK ETS – a car crash in slow motion’. Bill Thompson asked members whether they shared the concerns set out in the presentation. The following main points arose in discussion.

19. In response to Diana Casey, Louis Redshaw confirmed that that it would be open to any ‘fit and proper person’ to set up a trading account in the UK Registry and that there was nothing to stop a secondary market starting immediately. He added, however, that the only price in existence would be one based on speculators’ demand. No secondary market could be liquid unless there were enough people with interest so in this respect speculators could be useful. The worry would be that demand would outstrip supply at least initially. Once allowances were in circulation and could be used by market participants, liquidity would improve. It was difficult at this point for the market to form a view of what the price should be. UK utilities may be buying-in allowances to cover their accounts on a day-by-day basis – with a knock-on impact on the price of electricity. In essence, however, liquidity could be expected to develop naturally, albeit that the UK ETS was a small system compared to the EU ETS. Hopefully by the end of 2021 there should be a reasonably well-functioning market.

20. Diana Casey said that companies were extremely concerned that they had no way to manage their position in the UK ETS. Some felt threatened that they could be wiped out by expected high prices. She asked what action BEIS would take to help in the case of high prices to ensure UK companies were not rendered uncompetitive by that? Otherwise, UK businesses could be in serious trouble.

21. India Redrup fully supported the concerns expressed in the presentation. The electricity sector was particularly worried about the position through to the end of Q2 given also that there were legal processes to be completed before auctioning could commence; it was very frustrating and unnerving for industry in the face of a lack of procurement options. This was a very urgent issue but she questioned whether the solutions proposed in the presentation could be initiated in time to avoid problems. Supporting this, Jonathan Spence said that the risk that UK allowance prices could go very high was of great concern to his company as electricity generators.

22. Support for these concerns was also expressed by Andrew McDermott – who added that his sector had always feared that a standalone UK ETS could be ‘cornered’ by speculators –

Paul Percy and Rich Woolley. Martyn Kenny noted that international parents were extremely worried; his sector had said all along that the proposed Cost Containment Mechanism (CCM) (even in its adjusted form) designed to protect against a high price risk was insufficiently reactive to address potential problems. Industrials had no choice but to buy to comply and no way to hedge. For carbon intensive businesses this was a massive risk to UK manufacturing - undermining economic viability, investment (including in decarbonisation) and increasing the likelihood of carbon leakage.

23. In response to a series of questions about the CCM process, Joel Kenrick drew attention to the detail set out in paragraphs 125-127 of the government response - <https://www.gov.uk/government/consultations/the-future-of-uk-carbon-pricing> and confirmed that the 2-year baseline was a rolling 2 years. Charlie Lewis reiterated that – as explained in the government response - price risk was addressed by two provisions – an auction reserve price to protect against a low price risk and the CCM designed to protect against a higher price risk. Under the CCM if prices reached double the average price over the last 2 years, the CCM would cut in after 3 months. Bringing forward future allowances and auctioning allowances were measures that could be taken and BEIS would want to do that in a timely manner.

24. In conclusion Charlie Lewis said that BEIS had heard clearly the concerns exposed by the presentation and subsequent discussion and would keep listening albeit that they had encountered views on the market that pointed in different directions. BEIS were interested in business comments on the solutions mentioned by Louis Redshaw and remained open-minded on international linking. He noted that compliance for 2021 was not required until the end of April 2022 and confirmed that the Registry would be available from March/April. Auctions would be up and running as soon as possible commencing in Q2 – the necessary HMT regulations would be laid before Parliament shortly. Later notes: The regulations were laid before Parliament on 11 February –see [auctioning regs](#) (circulated to ETS WG members). The regulations provide for an auction reserve price of £22, increased from the earlier figure of £15. The following links to the UK ETS auction calendar for 2021 and to an ICE press release were circulated to ETS WG members on 26 February.

<https://www.theice.com/publicdocs/circulars/21030.pdf>

<https://ir.theice.com/press/news-details/2021/ICE-publishes-auction-calendar-for-UKs-new-Emissions-Trading-Scheme/default.aspx>

25. In response to Bill Thompson, Louis Redshaw said that he had not heard of any work going ahead on legal standard contract agreements – as had taken place before 2005 and the commencement of the EUETS. He added that he found the Government position on cost containment of concern – if a price had to be, say, 100 euros for three months before the CCM cut in, that was unlikely to be of help and the damage would have been done. He reiterated that the issue was the prospect of insufficient supply where the market could be bought up by hedgers. Joel Kenrick responded that for the purpose of the CCM, the average carbon price before 31 December 2020 would be based on the EU ETS carbon price.

26. In thanking Louis Redshaw for his thought-provoking presentation and members for their comments, Bill Thompson said that the issues that he had raised would clearly need to be addressed again at the next meeting in the light of ongoing market developments and that it may be necessary to have an update meeting in the meantime. – **Action John Craven to note**

UK ETS Legislative and Market update – BEIS Joel Kenrick & Seamus Gallagher

27. Joel Kenrick and Seamus Gallagher presented the slides headed ‘UK ETS update’ and ‘ETS Policy Development’ in the presentation at Annex 1 (circulated to ETS WG members). On concerns around the small emitters and hospitals opt-out raised at the previous meeting, he added that BEIS were looking at potential options and would be looking to early feedback on these. It would be of interest to know if small emitters and hospitals would prefer to re-enter the main scheme – although that would require legislative changes. Joel Kenrick undertook to take away and revert on a question from Andrew McDermott as to whether free allocation would only be issued after annual activity level changes had been factored in (i.e. after June 2021). – *Action Joel Kenrick, BEIS*

28. Joe Cooper drew attention to three slides on UK ETS guidance that there had not been time to present, i.e. slides 4-6 of the BEIS pack. They set out what had been published so far, links to all those documents, videos and webinars, and a summary of what was to come in the next few months. He encouraged members to take a look and circulate the relevant links to operators if they thought that would be useful. It was noted that these slides had already been circulated to those attending and that the Secretariat would circulate them again to all ETS WG members after the meeting. – *Action ETG Secretariat - Action complete*

EU ETS Phase 4 implementation - Andy Roberts – UK PIA

29. Andy Robert presented the slides at Annex 5 (circulated to ETS WG members) reporting on EU ETS Phase 4 implementation. He noted the exclusion of UK installations from the benchmark update. The draft Implementing Regulation covered changes in the benchmarks for use in the period 2021-2025. The sector reductions in benchmark levels were banded according to the FAR; the improvement rate was 0.2% minimum and 1.6% maximum. The impact fell on all of the sectors provided with free allocations and the majority of sectors would see a reduction of around 30%* by phase end. A concern for the refining sector was the need to purchase a significant number of allowances to make up the gap. There were no questions.

Later notes from Andy Roberts:

- i. *A revised set of slides subsequently circulated to ETS WG members shows that the reduction in free allowances for many sectors is closer to 25% from the start of Phase 4.
- ii. Drawing upon the version subsequently approved by the Climate Change Committee of Council's experts on benchmark values for the period 2021-2025 (circulated to ETS WG members on 1 March)... ‘some of the averages and benchmark values have been revised since the draft document published on 7th December 2020 ([Ref. Ares\(2020\)740183-07/12/2020](#)) on which my previous analysis (given at the ETS WG meeting on 9 February) was based. The benchmark values for the following sectors have increased (marginally in most cases): Aluminium, Grey cement clinker, Plaster, Phenol/acetone, Soda ash, Refinery products, Iron casting, Mineral wool, Plasterboard, Aromatics, Hydrogen, Synthesis gas (syngas). It appears that the benchmark value for roof tiles is the only benchmark value that has decreased (from 0.121 to 0.120).’

Future development & upcoming EU ETS and UK ETS reviews – BEIS update

30. Charlie Lewis and Joel Kenrick presented the slides headed ‘UK ETS update’ and ‘UK ETS Policy development’ in the BEIS presentation pack at Annex 1 (circulated to ETS WG members), referring back to the earlier Government confirmation of openness to consider linking to the EU scheme or internationally. The following main points arose in discussion.

31. In response to a question as to whether there was any reason not to negotiate a linked scheme with the EU, Charlie Lewis said that it was enshrined in the free trade agreement that the UK was clear both parties will have their own effective systems of carbon pricing in place to help fulfil their respective climate goals. The UK and EU have agreed to cooperate on carbon pricing, including through giving consideration to linking their respective carbon pricing systems, although neither side is under any obligation to do so. This was also reflected in the Energy White Paper which said that the UK is open to linking the UK ETS internationally in principle and is considering a range of options but no decision on preferred linking partners has yet been made.

32. Andrew McDermott commented that the free allocation review could have big implications for industry and it would be helpful to know in which quarter it was likely to be published. On the potential for linkage of the UK ETS to the EU ETS, Andy Roberts said that the level of uncertainty around revision of the EU ETS was now high given also the concerns reflected in the presentation by Louis Redshaw. It would be essential to hear from BEIS and others as to whether linkage was likely to be achievable in the next 2-3 years.

33. Paul Percy and Martin Kenny asked about CBAM (see also next item). It would be good to understand more about what the UK was doing on CBAM given that the EU appeared to be well ahead in its thinking. Matthew Reizenstein added that there had been speculation in the media that the Prime Minister was seeking some global agreement at the G7 (which UK was hosting this year) – link as follows:

<https://www.bloomberg.com/news/articles/2021-02-04/u-k-s-boris-johnson-considers-g-7-bid-on-green-border-levies>

Border Carbon Adjustments (CBAM) – update by Andrew McDermott, SG Chair

34. Andrew McDermott gave an update drawing upon his written brief at Annex 6 (circulated to ETS WG members) adding that, in the interest of time, he would be happy to explore any questions off-line. As to the UK Government position on a BCA, Eileen Wang (HMT) noted that their interim Net Zero Review report (later item) acknowledged that CBAM was one of the approaches available to address carbon leakage but it clearly needed further investigation including whether it was consistent with WTO rules. Andrew McDermott added that, as mentioned at the last EU ETS WG meeting, it was hoped to hold a further meeting of his subgroup to understand the UK Government’s emerging views on the EU CBAM and its underlying concepts, as well as the extent to which a UK CBA policy was being considered, either to complement the standalone UK ETS or as part of a link to the EU ETS.

Planned HMT Response to Carbon Emissions Tax (CET) consultation

35. Secretariat note: John Craven said that he would check back with HMT to establish the position on the planned HMT Response to Carbon Emissions Tax (CET) consultation.

UK Net Zero 2050 Series

Introduction and ETG policy roadmap to 2050

36. Introducing this section of the meeting focusing on presentations by the CCC and HMT, Bill Thompson also noted that an ETG Board paper (circulated to ETS WG members) setting out a policy roadmap to 2050 had recently been sent to Government and acknowledged the work of Bill Kyte ETG Fellow in developing this.

HMT Net Zero Review – update by Eileen Wang - Net Zero Review Team

37. Eileen Wang gave the presentation at Annex 7 (circulated to ETS WG members) on the HMT Net Zero Review interim report, adding that a final report was due in the Spring. Although the January deadline for responses had now passed, she would be happy for members to send in any reflections or feedback and would provide an email address for that purpose. – *Action Eileen Wang*. Later note: the email address (circulated to ETS WG members) is NZReengagement@hmtreasury.gov.uk

38. Bill Thompson commented that Chart1D in the interim report discussed different ways of measuring carbon emissions and in particular highlighted the fact that substantial emissions were being imported in goods in response to virtually unchanged consumers' behaviour, potentially negating progress with industrial emissions reduction in the UK. Eileen Wang acknowledged that HMT were aware of this issue and hoped to address it in more detail in the final report with input not only from her team but also from HMT international and trade teams. Bill Thompson added that there was a risk in not evaluating GHG reduction policies that were fit for the post-industrial world of the future.

39. Bryan Bateman noted that the interim report omitted reference to the potentially heavy cost of achieving carbon neutrality by 2050 which independent analysts had calculated to be in excess of £1 trillion. Given that UK emissions were in the 'noise level' of world emissions, consideration should be given to a risk/damage assessment to inform how deeply the UK should go into the net zero process; in endorsing the policy, Parliament did not consider costs. Eileen Wang acknowledged the difficulty of estimating the costs of net zero; however, it was anticipated that the final report would cover the impact of behavioural changes.

Sixth UK Carbon Budget 2033-37: Presentation by CCC - Aaron Goater

40. Aaron Goater gave the presentation on the Sixth UK Carbon Budget 2033-37 at Annex 8 (circulated to ETS WG members) setting out the CCC's recommended path, the pathway by sector, the ETS pathway recommendation and policy recommendations by sector. The following main points arose in discussion.

41. Will Webster commented that O&G UK would be writing a policy paper in March to reflect the various policy papers published in December by BEIS, the CCC and HMT. Whilst carbon pricing was important, it would need to be part of a package of measures including new technology for which funding would need to come either from the taxpayer or from consumers' bills. On costs, he acknowledged that estimates varied according to the basis used. Compared to the £1 trillion mentioned in discussion of the previous item, the cost would appear smaller when expressed as a proportion of GDP – and he noted that the CCC calculated this at only 1%. The HMT zero paper had taken this further by looking at GDP in relation to GVA bearing

in mind that consumers might place a smaller value on less carbon intensive products. How did the CCC judge the balance between upfront costs and the longer-term benefit of carbon reduction?

42. Aaron Goater expressed the view that over time the cost of decarbonisation would start to balance out against the savings. For example, savings in transport – with electric vehicles being cheaper to run - and reduced expenditure in manufacturing. This CCC assessment was focused on resource costs. Further analysis on the impact on GDP was presented in a Cambridge Economics report on the Economic impact of the Sixth Carbon Budget, which covered the type of further analysis that HMT had expressed interest in. The CCC tended to focus less on this type of analysis because of the very high uncertainty associated with it.

43. In thanking Aaron Goater for his presentation, Will Webster said that there were clearly many different ways to address and calculate costs, all of which produced different answers – but it was important to model against the counter-factual. Bill Thompson added that the presentation had given the WG plenty of food for thought. Since in the time allocated it had not been possible for Aaron Goater to expand on several key elements of his presentation, he proposed to follow these up a further session which could also address the Element Energy ‘Deep Decarbonisation Pathways for UK Industry’ Report for the CCC (published in November 2020) - with which a number of ETG members had engaged. – **Action John Craven to note.** Later note: This meeting was scheduled for Thursday 25 February (notified to ETS WG members).

Negative Emissions Technologies (NETs): Joint BEIS & HMT call for evidence – update by Laura Hurley.

44. Secretariat note: Since this item was not reached, John Craven undertook to check back with BEIS as to the position. - **Action John Craven.** Later note: BEIS have advised as follows (circulated to ETS WG members):

The [Greenhouse Gas Removals Call for Evidence](#) was launched on 4 December 2020, and is open to responses until Friday 26 February 2021

(via email to ggr-call-for-evidence@beis.gov.uk).

It consists of three chapters which, broadly speaking, invite evidence and stakeholder views on the following:

The latest evidence on the viability of different GGRs in the UK – including future costs, deployment potential, lifecycle emissions and wider environmental impacts.

Policy mechanisms that government could consider to address market barriers in order to accelerate the development and deployment of GGRs.

Supporting policies needed to enable deployment and scale-up in future, such as a robust framework for monitoring, reporting and verification of negative emissions.’

Remaining provisional 2021 meeting programme and closure of the meeting

45. The following provisional ETS WG meeting programme was noted – commencing at 10.30 hours: Tuesday 20 April 2021; Tuesday 29 June 2021 – incorporating the ETG Ltd AGM; Tuesday 12 October 2021; Tuesday 7 December 2021. In closing the meeting at 13.20, Bill Thompson once again thanked all attendees, presenters and the ETG Secretariat for their contributions to and preparation of the meeting. He looked forward to the proposed further ETS WG session with Aaron Goater (paragraph 43) and also flagged the proposed further meeting of the CBAM subgroup (paragraph 34) led by Vice Chair Andrew McDermott .

ETG Secretariat, 19 February 2021