[redacted]

From: Piers Forster <[redacted]>
Sent: Wednesday, 17 February 2021 8:35 pm
To: [redacted]; Jan Sigurd Fuglestvedt; Millar, Richard
Subject: Re: [UNCLASSIFIED] Publication of review draft and review feedback

[redacted] this is fine for me
All the best

From: [redacted]
Sent: Wednesday, February 17, 2021 3:42 am
To: Piers Forster; Jan Sigurd Fuglestvedt; Millar, Richard
Subject: [UNCLASSIFIED] Publication of review draft and review feedback

[UNCLASSIFIED]

Hi all

Just to let you know that our peak body for the Dairy sector (DairyNZ) has requested the peer review feedback on the science piece under our freedom of information law. Under the law we can only withhold information on limited grounds and it doesn't appear that any apply here.

Just giving you a heads up that the review draft and Andy and Myles' feedback on it will be released shortly. We'll likely be releasing it to them at the end of this week or early next week and then we proactively release these requests on our website as well.

Having reviewed the comments and the changes made in the review draft I don't think there's anything there that would cause a problem, but do let me know ASAP if that release will be an issue.

Kind regards

[redacted]

[UNCLASSIFIED]

From: Piers Forster <[redacted]>
Sent: Wednesday, 3 February 2021 11:58 am
To: [redacted]; Jan Sigurd Fuglestvedt <[redacted]>
[redacted] RE: Final version of the CCC NZ report

[redacted] well done on your carbon budget report at the weekend. It's still on my reading list but looks like it went down pretty well in the press
All the best

From: [redacted]
Sent: Tuesday, February 2, 2021 10:08:19 PM
To: Jan Sigurd Fuglestvedt <[redacted]>; Millar, Richard <[redacted]>; Piers Forster <[redacted]>
Subject: RE: [UNCLASSIFIED] RE: Final version of the CCC NZ report

[UNCLASSIFIED]

Hello all

Just letting you know that the report is now published! It's live on our website here: https://www.climatecommission.govt.nz/get-involved/sharing-our-thinking/

Congratulations on a job well done!

Kind regards

[redacted]

[UNCLASSIFIED]

From: Jan Sigurd Fuglestvedt <[redacted]>
Sent: Thursday, 14 January 2021 11:01 am
To: [redacted]
Cc: Millar, Richard <[redacted]>; Piers Forster <[redacted]>
Subject: RE: [UNCLASSIFIED] RE: Final version of the CCC NZ report

Hi [redacted]

I have now gone through the references and cleaned up a little. Hope this is OK. I also have a few very minor edits in the text (shown by track changes).

Best regards,
Jan

From: Jan Sigurd Fuglestvedt
Sent: tirsdag 12. januar 2021 07:58
To: [redacted]; Piers Forster <[redacted]>
Cc: Millar, Richard <[redacted]>
Subject: RE: [UNCLASSIFIED] RE: Final version of the CCC NZ report

Hi,

Thanks. And I can check the list of references today.

Best,
Jan

From: [redacted]
Sent: mandag 11. januar 2021 23:25
To: Piers Forster <[redacted]>
Cc: Jan Sigurd Fuglestvedt <[redacted]>; Millar, Richard <[redacted]>
Subject: RE: [UNCLASSIFIED] RE: Final version of the CCC NZ report

[UNCLASSIFIED]

Brilliant. Thank Piers!

[UNCLASSIFIED]

From: Piers Forster <[redacted]>
Sent: Tuesday, 12 January 2021 11:21 am
To: [redacted]
Cc: Jan Sigurd Fuglestvedt <[redacted]>; Millar, Richard <[redacted]>
Subject: Re: [UNCLASSIFIED] RE: Final version of the CCC NZ report

Hi [redacted]

Let's go with "will" thanks for letting us make these late changes.
All the best
Piers

From: [redacted]
Date: Monday, 11 January 2021 at 21:13
To: Piers Forster <[redacted]>
Cc: Jan Sigurd Fuglestvedt <[redacted]>, Millar, Richard <[redacted]>
Subject: [UNCLASSIFIED] RE: Final version of the CCC NZ report

[UNCLASSIFIED]

Dear {Pier

Thanks for the updated version. We can take the new version. I think it's looking really good, and will be useful in helping us to steer the debate about climate policy in New Zealand. I've made a few further proofing changes (in track changes) from my read through. They're all minor and typographical aside from the first one. Do you mind quickly checking them off and confirming the wording on the first one?

I've also got Andy's permission to use figure 7. Attached for your reference.

Kind regards

[redacted]

[UNCLASSIFIED]

From: Piers Forster <[redacted]>
Sent: Saturday, 9 January 2021 4:10 am
To: [redacted]
Cc: Jan Sigurd Fuglestvedt <[redacted]>; Millar, Richard <[redacted]>
Subject: Final version of the CCC NZ report

Dear [redacted]

I think you maybe on holiday. Here is an edited version of the report. We have made quite a few minor edits, updated one figure and added a mini abstract. We hope you can take this new version.

We learned a lot from this work. All the best for 2021

Best wishes
Piers, Jan and Richard

Piers Forster
[redacted]

[redacted]

From: Piers Forster <[redacted]>
Sent: Tuesday, 22 December 2020 3:40 pm
To: [redacted]; Jan Sigurd Fuglestvedt
Cc: Millar, Richard
Subject: Re: [UNCLASSIFIED] Review comments from Myles Allen

Dear [redacted]

Thanks for your email and good luck with your own budget efforts. Publication after proof reading is fine from our end also. We have tried to follow reviewers advice as much as possible so it will hopefully pass muster with the New Zealand intelligencia!
It was fun to think about another country's perspective and meant we learned much doing the report. Best wishes and merry Christmas 🎄

Piers

🌳

From: [redacted]
Sent: Tuesday, December 22, 2020 1:39:37 AM
To: Jan Sigurd Fuglestvedt <[redacted]>
Cc: Millar, Richard <[redacted]>; Piers Forster <[redacted]>
Subject: RE: [UNCLASSIFIED] Review comments from Myles Allen

[UNCLASSIFIED]

Thanks so much Jan, Piers, Richard!

And congratulations Piers on getting your own emission budgets done earlier this month (and adopted by the government in record time!)

I'm happy to ask Andy for permission to use the figure if you like. I believe we are also planning to use that particular figure in our report so I'd expect it should be alright.

We're pretty keen that now that the report's been reviewed and you've responded to that feedback that we press ahead and publish the report. Our consultation begins at the end of January, so there's not really time for another round of review if we're to publish it alongside our advice. There's probably time to streamline the references if you'd like to and we can give it a proofread but that's likely to be all there's time for. Will that be alright?

I will also be off on holiday until the second week of January, so let's pick this up then – I hope you all have a restful holiday and you all stay well!

Kind regards

[redacted]

[redacted] | **Principal Analyst**
M +[redacted]
[redacted]
W climatecommission.govt.nz

[UNCLASSIFIED]

From: Jan Sigurd Fuglestvedt [redacted]
Sent: Saturday, 19 December 2020 9:33 am
To: [redacted]
Cc: Millar, Richard <[redacted]@theccc.org.uk>; Piers Forster <[redacted]>
Subject: RE: [UNCLASSIFIED] Review comments from Myles Allen

Dear [redacted]

Enclosed please find the revised version of our report. We found the comments from the reviewers very helpful and we have made some quite extensive changes to take these into account in the revised version. We think that a second review might be beneficial if time, since the comments were quite extensive. We have also now added one of Andy Reisinger's figures from a government report and maybe need to ask for permission to use it?

We will now (almost) all of us be offline until January so no rush to reply. Merry Christmas!

Best regards,
Jan
PS We would also later like to improve the layout and streamline the list of references.

From: [redacted]
Sent: mandag 30. november 2020 21:48
To: Jan Sigurd Fuglestvedt [redacted]>; Piers Forster <[redacted]>
Cc: Millar, Richard [redacted]
Subject: RE: [UNCLASSIFIED] Review comments from Myles Allen

[UNCLASSIFIED]

Thanks very much Jan!

[UNCLASSIFIED]

From: Jan Sigurd Fuglestvedt <[redacted]>
Sent: Monday, 23 November 2020 8:24 am
To: [redacted]; Piers Forster <[redacted]>
Cc: Millar, Richard <[redacted]>
Subject: RE: [UNCLASSIFIED] Review comments from Myles Allen

Hello again [redacted]

We are in a quite busy period now with many commitments and deadlines. But we will do our best to finalize the report by Christmas.

Will be interesting to have a closer look at the review comments. Thanks.

Best regards,

Jan

From: Jan Sigurd Fuglestvedt
Sent: onsdag 18. november 2020 04:30
To: [redacted]; Piers Forster <[redacted]
Cc: Millar, Richard <[redacted]>
Subject: RE: [UNCLASSIFIED] Review comments from Myles Allen

Hi [redacted]

Many thanks!

Piers, Richard and I will discuss what's feasible and will get in touch with you as soon as possible about the further timeline.

Best regards,
Jan

From: [redacted]
Sent: onsdag 18. november 2020 03:10
To: Piers Forster <[redacted]>; Jan Sigurd Fuglestvedt <[redacted]>
Cc: Millar, Richard <[redacted]>
Subject: [UNCLASSIFIED] Review comments from Myles Allen

[UNCLASSIFIED]

Hi Piers, Jan, Richard

Here are the review comments from Myles Allen. I've attached the track changes in the text, and copied his comments below – overall very happy with just a few specific issues to flag.

It sounds like the delays have pushed this into a pretty congested time with other deadlines, so happy to work out with you what's workable. Ideally, we'd like to publish it as part of our pre-consultation process which we're kicking off in December, ahead of formal consultation beginning at the end of January. Given your commitments, how feasible is it to finalise the report before Christmas?

Kind regards

[redacted]

From Myles:
Overall, the report is excellent and I have no major concerns about the science presented, apart from one major omission and one innovation that the authors suggest, which I don't think is correct and is anyway unnecessary.

The omission is any discussion of the role of Nature-based Climate Solutions in offsetting ongoing fossil fuel emissions. In a report on climate science considerations informing New Zealand's mitigation pathways, this seems a major gap, for reasons given in my comments. It doesn't need much discussion (indeed, my comments would probably do), but the issue needs to be flagged, together with the "fair-share" implications of New Zealand relying heavily on NbCS past 2050 particularly in the light of biogenic carbon released by earth system feedbacks.

The unnecessary innovation is figure 4. They use a simple linear regression to estimate the relationship between methane emission rates and cumulative CO2 emissions which seems to exaggerate the impact of falling methane emissions by about 40%. The reason is the way it is defined (average methane over the 20 years prior to peak warming, which is generally a period in which methane emissions are declining) and the way it is estimated (not controlling for the fact that peak warming across that subset of scenarios is still varying). The relationship is used to inform the discussion of what a 24 versus 47% reduction means for cumulative budgets, but in almost all cases, that reduction occurs by 2050, giving substantially higher methane emissions averaged over the 20 years prior to 2050. So the method really doesn't make sense, and in any case is completely unnecessary, when Cain et al (2019) or Collins et al (2020) both give perfectly good, tested and peer-reviewed formulae for translating changes in methane emission rates into cumulative CO2 warming-equivalent emissions. Using the Cain et al formula, I calculate the 200 GtCO2 quoted should be 145 GtCO2. The authors might argue "so what", but it seems a bit odd, when formulae exist in the literature to do precisely this comparison, to make up something new that gives a different answer.

But these are the only substantial quibbles I can come up with in an otherwise excellent report.

[UNCLASSIFIED]

From: Piers Forster <[redacted]>
Sent: Friday, 6 November 2020 11:02 pm
To: [redacted]; Jan Sigurd Fuglestvedt [redacted]
Cc: Millar, Richard <[redacted]>
Subject: Re: [UNCLASSIFIED] RE: Draft outline

Dear [redacted]

Thanks for that. We all felt that Andy's comments were excellent and would really help us improve the draft so are basically excited to go back in and improve it. However, both Richard and I are in really busy periods, with our 6 carbon budget due out on 9 December and Jan and I are also involved in IPCC report writing, so deadlines may continue to slip. Do you have a hard deadline when you need a final version?

All the best

From: [redacted]
Date: Friday, 6 November 2020 at 03:16
To: Piers Forster [redacted], Jan Sigurd Fuglestvedt [redacted]
Cc: Millar, Richard [redacted]
Subject: RE: [UNCLASSIFIED] RE: Draft outline

[UNCLASSIFIED]

Hello gentlemen

A quick update. Apologies for the extensive delay – my emails to Myles wee blocked in his spam filter which delayed his review by several weeks. I don't have his review yet but am hoping to get it to you shortly.

Apologies again – I know this process has taken far longer than we planned, and you've been exceptionally patient throughout it all.

Hope you are all well

Kind regards

[redacted]

[UNCLASSIFIED]

From: Piers Forster [redacted]
Sent: Monday, 19 October 2020 8:41 pm
To: [redacted]; Jan Sigurd Fuglestvedt <[redacted]>
Cc: Millar, Richard <[redacted]>
Subject: Re: [UNCLASSIFIED] RE: Draft outline

Dear [redacted]
These are really helpful comments from Andy on the framing and they have given us further lessons on the New Zealand situation, which is always useful. We expect the other review might push in another direction, so will wait until we get both before responding. I hope this is OK?
Best wishes
Piers

From: [redacted]
Date: Sunday, 18 October 2020 at 23:50
To: Piers Forster <[redacted]>, Jan Sigurd Fuglestvedt [redacted]
Cc: Millar, Richard [redacted]
Subject: RE: [UNCLASSIFIED] RE: Draft outline

[UNCLASSIFIED]

Hi all

Here's the review feedback from Andy (he said he was fine with non-anonymous feedback). Most of his comments are around the framing of the impact of methane and its relationship to temperature. He's put edits and comments in track changes.

As I mentioned the other week – where you think he's correct it'd be good to incorporate his feedback if time allows (but am aware time may not allow). Where you disagree on the substance, then just saying so should be sufficient. And if any suggested direction is out of the scope of this work then feel free to say so.

Hoping to get you feedback from the other reviewer shortly.

Kind regards

[redacted]

[UNCLASSIFIED]

From: Piers Forster <[redacted]>
Sent: Monday, 12 October 2020 12:36 am
To: [redacted] Jan Sigurd Fuglestvedt <[redacted]>

Cc: Millar, Richard <[redacted]>
Subject: Re: [UNCLASSIFIED] RE: Draft outline

Hi [redacted]

Sorry for making you wait until Monday your time. Here is our revised draft. I hope this is helpful and we are happy to revise again as needed. Good luck with your own deadlines.
Best wishes
Piers, Richard and Jan

From: [redacted]
Date: Sunday, 11 October 2020 at 01:33
To: Piers Forster <[redacted]>, Jan Fuglestvedt [redacted]
Cc: "Millar, Richard" <[redacted]>
Subject: RE: [UNCLASSIFIED] RE: Draft outline

[UNCLASSIFIED]

That's rough Piers. Thanks for pushing through to get it finished. I really appreciate it.

(I can only sadly join you in working this weekend – I usually wouldn't but our deadlines are approaching)

Kind regards

[redacted]

[UNCLASSIFIED]

From: Piers Forster <[redacted]>
Sent: Saturday, 10 October 2020 12:15 am
To: [redacted]; Jan Sigurd Fuglestvedt [redacted]
Cc: Millar, Richard [redacted]
Subject: Re: [UNCLASSIFIED] RE: Draft outline

Hi [redacted]
Sorry for delays. This is just a heads up that we haven't forgotten you and will work on the paper at the weekend to get to you by Monday. It's a sad state of affairs I know – especially as it probably our last taste of freedom as we are expecting restrictions to come back next week…

Best wishes
Piers

From: [redacted]
Date: Monday, 28 September 2020 at 04:48
To: Piers Forster <[redacted]>, Jan Fuglestvedt <[redacted]>
Cc: "Millar, Richard" [redacted]
Subject: RE: [UNCLASSIFIED] RE: Draft outline

[UNCLASSIFIED]

Hi Piers, Jan, Richard

Thanks very much for the draft. I figure that my idea of something to be ashamed of is a bit lower than yours - that report looked to be pretty good to me. :) Happy to have a bit of internal review though before we put to external reviewers. I'm getting a couple of others here to look it over and I'll aim to get you some consolidated feedback in a day or two.

Kind regards

[redacted]

[UNCLASSIFIED]

From: Piers Forster [redacted]
Sent: Saturday, 26 September 2020 7:37 am
To: [redacted]; Jan Sigurd Fuglestvedt [redacted]
Cc: Millar, Richard [redacted]
Subject: Re: [UNCLASSIFIED] RE: Draft outline

Dear [redacted]

Sorry we are overdue on our homework and especially so considering time zones. Please find our first draft attached. We are still a little ashamed of it, hence they made me first author. Life got in the way this week with house moving and car crashes... We want to make sure it meets your needs though, so we wondered if a quick internal review was worthwhile before going for the external review? This way we could do any extra analysis you may want and get it reviewed as well..

Thanks in advance and best wishes

Piers

[redacted]

From: [redacted]
Sent: Tuesday, 20 October 2020 4:31 pm
To: 'Piers Forster'; Jan Sigurd Fuglestvedt
Cc: Millar, Richard
Subject: RE: [UNCLASSIFIED] RE: Draft outline

[UNCLASSIFIED]

Hi Piers

Yes that is very sensible. I'll chase it up and get it to you as soon as I can.

Cheers

[redacted]

[UNCLASSIFIED]

From: Piers Forster [redacted]
Sent: Monday, 19 October 2020 8:41 pm
To: [redacted]; Jan Sigurd Fuglestvedt [redacted]
Cc: Millar, Richard [redacted]
Subject: Re: [UNCLASSIFIED] RE: Draft outline

Dear [redacted]
These are really helpful comments from Andy on the framing and they have given us further lessons on the New Zealand situation, which is always useful. We expect the other review might push in another direction, so will wait until we get both before responding. I hope this is OK?
Best wishes
Piers

From: [redacted]
Date: Sunday, 18 October 2020 at 23:50
To: Piers Forster <[redacted]>, Jan Sigurd Fuglestvedt <[redacted]>
Cc: Millar, Richard [redacted]
Subject: RE: [UNCLASSIFIED] RE: Draft outline

[UNCLASSIFIED]

Hi all

Here's the review feedback from Andy (he said he was fine with non-anonymous feedback). Most of his comments are around the framing of the impact of methane and its relationship to temperature. He's put edits and comments in track changes.

As I mentioned the other week – where you think he's correct it'd be good to incorporate his feedback if time allows (but am aware time may not allow). Where you disagree on the substance, then just saying so should be sufficient. And if any suggested direction is out of the scope of this work then feel free to say so.

Hoping to get you feedback from the other reviewer shortly.

Kind regards

[redacted]

[UNCLASSIFIED]

From: Piers Forster <[redacted]>
Sent: Monday, 12 October 2020 12:36 am
To: [redacted]; Jan Sigurd Fuglestvedt [redacted]
Cc: Millar, Richard [redacted]
Subject: Re: [UNCLASSIFIED] RE: Draft outline

Hi [redacted]

Sorry for making you wait until Monday your time. Here is our revised draft. I hope this is helpful and we are happy to revise again as needed. Good luck with your own deadlines.
Best wishes
Piers, Richard and Jan

From: [redacted]
Date: Sunday, 11 October 2020 at 01:33
To: Piers Forster [redacted], Jan Fuglestvedt [redacted]
Cc: "Millar, Richard" [redacted]
Subject: RE: [UNCLASSIFIED] RE: Draft outline

[UNCLASSIFIED]

That's rough Piers. Thanks for pushing through to get it finished. I really appreciate it.

(I can only sadly join you in working this weekend – I usually wouldn't but our deadlines are approaching)

Kind regards

[redacted]

[UNCLASSIFIED]

From: Piers Forster [redacted]
Sent: Saturday, 10 October 2020 12:15 am
To: [redacted]; Jan Sigurd Fuglestvedt [redacted]
Cc: Millar, Richard [redacted]
Subject: Re: [UNCLASSIFIED] RE: Draft outline

Hi [redacted]

Sorry for delays. This is just a heads up that we haven't forgotten you and will work on the paper at the weekend to get to you by Monday. It's a sad state of affairs I know – especially as it probably our last taste of freedom as we are expecting restrictions to come back next week…

Best wishes
Piers

From: [redacted]
Date: Monday, 28 September 2020 at 04:48
To: Piers Forster <[redacted]>, Jan Fuglestvedt [redacted]
Cc: "Millar, Richard" [redacted]
Subject: RE: [UNCLASSIFIED] RE: Draft outline

[UNCLASSIFIED]

Hi Piers, Jan, Richard

Thanks very much for the draft. I figure that my idea of something to be ashamed of is a bit lower than yours - that report looked to be pretty good to me. :) Happy to have a bit of internal review though before we put to external reviewers. I'm getting a couple of others here to look it over and I'll aim to get you some consolidated feedback in a day or two.

Kind regards

[redacted]

[UNCLASSIFIED]

From: Piers Forster [redacted]
Sent: Saturday, 26 September 2020 7:37 am
To: [redacted]; Jan Sigurd Fuglestvedt [redacted]
Cc: Millar, Richard [redacted]
Subject: Re: [UNCLASSIFIED] RE: Draft outline

Dear [redacted],

Sorry we are overdue on our homework and especially so considering time zones. Please find our first draft attached. We are still a little ashamed of it, hence they made me first author. Life got in the way this week with house moving and car crashes... We want to make sure it meets your needs though, so we wondered if a quick internal review was worthwhile before going for the external review? This way we could do any extra analysis you may want and get it reviewed as well..

Thanks in advance and best wishes

Piers

[redacted]

From: Jan Sigurd Fuglestvedt [redacted]
Sent: Thursday, 14 January 2021 11:01 am
To: [redacted]
Cc: Millar, Richard; Piers Forster
Subject: RE: [UNCLASSIFIED] RE: Final version of the CCC NZ report
Attachments: NewZealand_revised12Jan_MJS proofs_PF_refJF.docx

Hi [redacted]

I have now gone through the references and cleaned up a little. Hope this is OK. I also have a few very minor edits in the text (shown by track changes).

Best regards,
Jan

From: Jan Sigurd Fuglestvedt
Sent: tirsdag 12. januar 2021 07:58
To: [redacted]; Piers Forster [redacted]
Cc: Millar, Richard [redacted]
Subject: RE: [UNCLASSIFIED] RE: Final version of the CCC NZ report

Hi,

Thanks. And I can check the list of references today.

Best,
Jan

From: [redacted]>
Sent: mandag 11. januar 2021 23:25
To: Piers Forster [redacted]
Cc: Jan Sigurd Fuglestvedt [redacted]; Millar, Richard [redacted]
Subject: RE: [UNCLASSIFIED] RE: Final version of the CCC NZ report

[UNCLASSIFIED]

Brilliant. Thank Piers!

[UNCLASSIFIED]

From: Piers Forster [redacted]
Sent: Tuesday, 12 January 2021 11:21 am
To: [redacted]>
Cc: Jan Sigurd Fuglestvedt [redacted]; Millar, Richard [redacted]
Subject: Re: [UNCLASSIFIED] RE: Final version of the CCC NZ report

Hi [redacted]

Let's go with "will" thanks for letting us make these late changes.
All the best

Piers

From: [redacted]
Date: Monday, 11 January 2021 at 21:13
To: Piers Forster <[redacted]>
Cc: Jan Sigurd Fuglestvedt <[redacted]>, Millar, Richard <[redacted]>
Subject: [UNCLASSIFIED] RE: Final version of the CCC NZ report

[UNCLASSIFIED]

Dear {Pier

Thanks for the updated version. We can take the new version. I think it's looking really good, and will be useful in helping us to steer the debate about climate policy in New Zealand. I've made a few further proofing changes (in track changes) from my read through. They're all minor and typographical aside from the first one. Do you mind quickly checking them off and confirming the wording on the first one?

I've also got Andy's permission to use figure 7. Attached for your reference.

Kind regards

[redacted]

[UNCLASSIFIED]

From: Piers Forster [redacted]
Sent: Saturday, 9 January 2021 4:10 am
To: [redacted]
Cc: Jan Sigurd Fuglestvedt [redacted]; Millar, Richard [redacted]
Subject: Final version of the CCC NZ report

Dear [redacted]

I think you maybe on holiday. Here is an edited version of the report. We have made quite a few minor edits, updated one figure and added a mini abstract. We hope you can take this new version.

We learned a lot from this work. All the best for 2021

Best wishes
Piers, Jan and Richard

Piers Forster
[redacted]