

Dr Henry Adams 5 minute talk for DC&R ctte mtg on Friday 2oct20 re WCM application

Hi my name is Henry Adams.

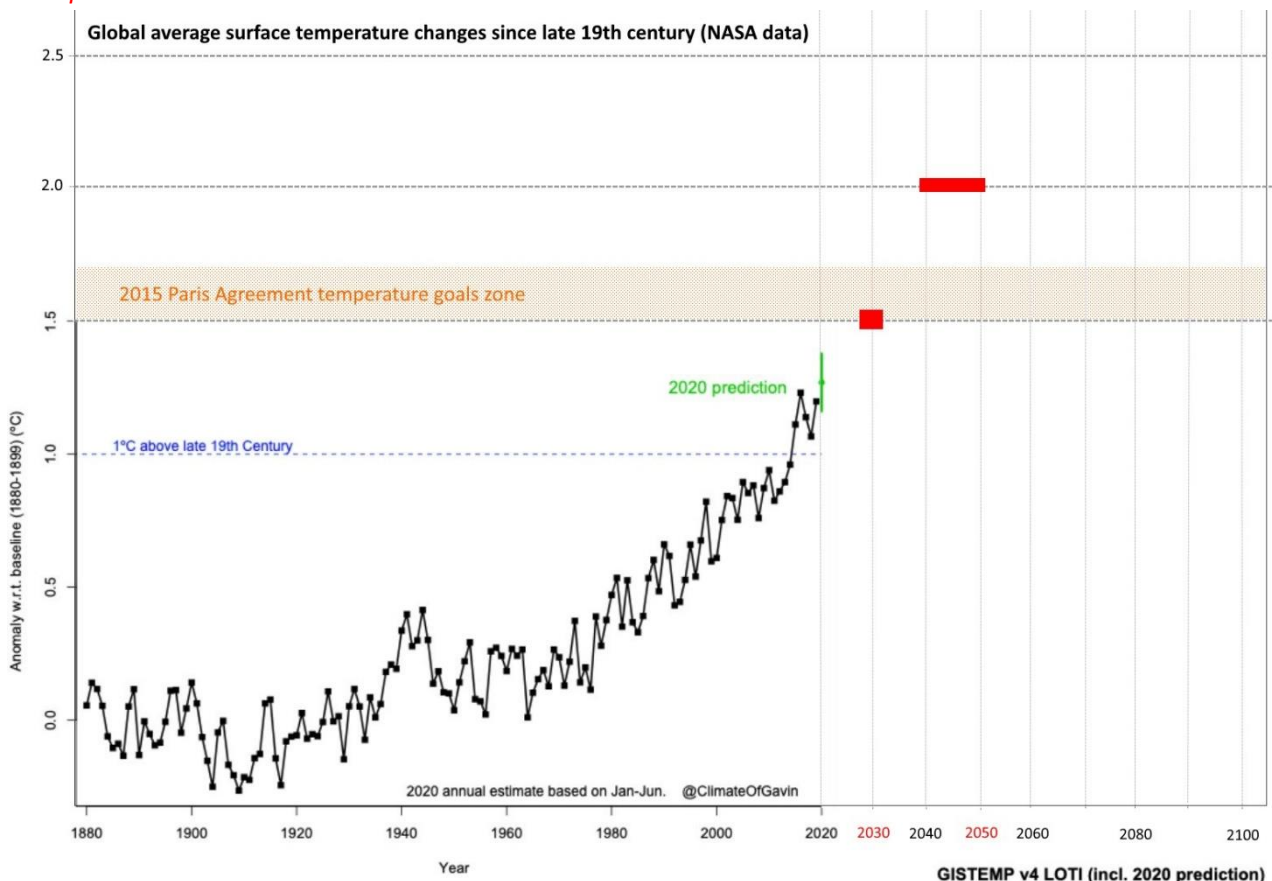
My talk compares **timelines**, focusing mainly on the **climate timeline** – because all decisions on fossil fuel projects need to comply with that timeline, if we are to see a liveable future for everyone.

I'll then briefly compare that with the time-line of carbon emissions that would result from the coal mine, and the likely timeline for steel-making to shift from coal, which I've been following up over the last year or two.

In 2015 the UK government signed up to The Paris Agreement on climate change. The most important part is the **temperature goals statement, and is for nations to be, I quote: "holding the increase in global average temperature to well below 2 degrees C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 degrees C above pre-industrial levels"**. We are now at 1.1 to 1.2C.

Keeping below 1.5C is especially important for low-lying coastal areas and islands already vulnerable to flooding associated with sea-level rise, and also to hotter and poorer nations who've contributed least to emissions but are already suffering the most.

Slide please



This graph plotted from NASA data shows changes in average global temperature from 1880 to this summer:

The orange band shows the Paris temperature goals which we need to keep below, or at least try not to exceed.

I hope it's clear to you that if we don't make most of our emissions reductions towards net zero **this decade by 2030** we will cross 1.5C as soon as around 2030 if not before, which is what climate scientists predict, and is shown by the red square.

We cannot wait until the end of 2049 as the Officer's Report advises!

Also if we continue on our present fossil-burning course to 2050 before we make a sudden major reduction, as the report recommends, we will not just fail to meet Paris goals but will also risk crossing +2 degrees C at between 2040 and 2050, as shown by the red band, with the loss of all coral reefs and other dreadful results.

The report is clearly not compliant with the Paris temperature goals and even for keeping below 2degreesC.

The report also ignores that because much of the quantity of carbon dioxide, once emitted, stays in the atmosphere for many decades, or even centuries or longer, this means that the heating effect is related **not** to the rate of emissions at that point in time, such as at 2050, but the **accumulated** emissions **up to** that point in time. This is an **additional** reason why most of the emissions reductions to net zero must be made as soon as possible and **not** left to the end of 2049.

The United Nations Environment Program states that the world now needs to reduce emissions by **7.6 per cent per year this decade**, and Professor Anderson calculates that for the UK this means **by 10% per year this decade** for reasons of equity.

If West Cumbria Mining are allowed to proceed with coal extraction it will add 9 to 10 million tonnes of CO2e to global emissions per year, of which **9** million tonnes would be from end-use in blast furnaces, and 0.4 to 1 million tonnes in operational emissions largely from methane emissions from the mine.

These end-use and total emissions are huge, around 2% of the size of UK's territorial emissions and more than the net emissions of a million UK citizens, which is twice the residential population of Cumbria.

Obviously totally incompatible with the UK reducing its emissions by 10% per year, and, with any carbon budget path for a 1.5C, or even a 2C limit.

By the way: The shipping emissions savings are only about 1% of the size of the end-use emissions.

West Cumbria Mining's coking coal is not needed in Europe because major steel companies have committed to significant percentage reductions in emissions in Europe by 2030, typically 25 to 30%, and to be carbon neutral by 2050, and because most of such emissions are from coal use in blast furnaces this will mean significant reductions in the use of coal by 2030 and further substantial reductions by 2040.

The report greatly downplays this timeline. For example by a decade for the Hybrit Hydrogen-DRI process. The Hybrit pilot plant started on August 31st this year. The demo plant will produce 1 million tonnes a year from 2025 2026 onwards.

For example SSAB: 25% CO2 reduction by 2030 and "fossil-free by 2045", Thyssenkrupp and Arcelor Mittal: 30% reduction by 2030 & carbon neutral by 2050, Liberty Group: "carbon neutral steel by 2030".

The coal mine would be in economic and political opposition to the decarbonisation of Europe's steel-making industry, and would harm UK's credibility as host of COP26 next year.

Councillors you now have the decision as to whether that coal remains in the ground without adding emissions, or is extracted and adds huge emissions.

That's me!

END *Refs/links, graph/charts appended:*

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Some refs/links, then graphs/charts

Steel-making news in 2020, focusing on its decarbonisation

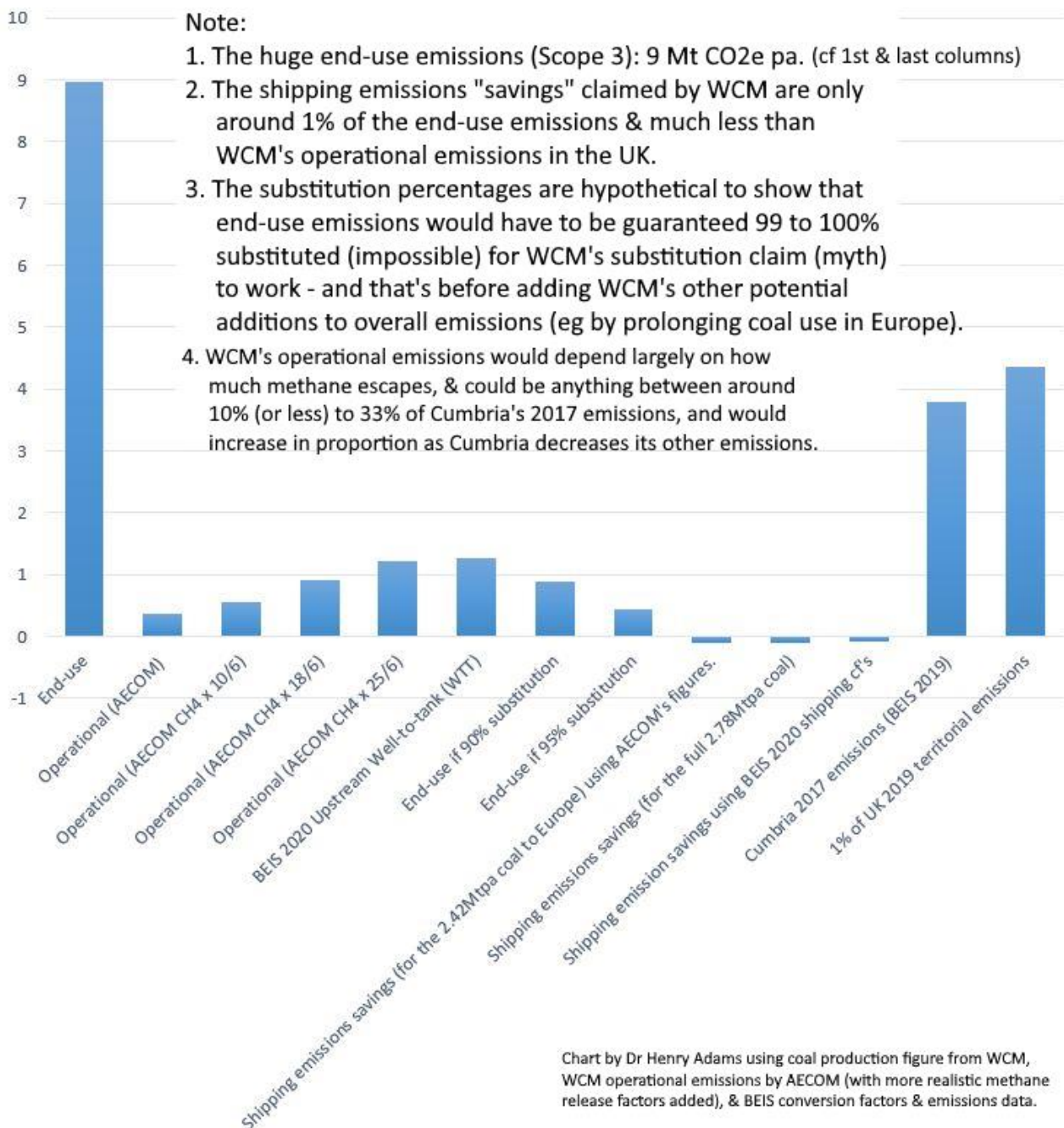
<https://henryadamsblog.wordpress.com/2020/02/20/steel-making-news-in-2020-focusing-on-its-decarbonisation/>

NB: See link to **MPI report** and news from SSAB, Thyssenkrupp, ArcelorMittal etc

The climate context and timeline: a 2 page summary briefing for Councillors by Dr Henry Adams

<http://www.dragonfly1.plus.com/TheClimateContext&Timeline-for-CLLrs-Summary.pdf>

WCM Emissions as millions of tonnes CO₂e pa



26nov20 version of chart – with improved wording

And more:

Carbon Dioxide Residence Time

