

# Blast furnace closure plans in the EU (& UK) show no need for a new coal mine

**Re: West Cumbria Mining Ltd's proposal for a new deep coal mine at Whitehaven, Cumbria**

Inspectorate's Appeal Ref: APP/H0900/V/21/3271069

Dr Henry Adams, Cumbria May/June/July/Aug 2022 (updated as new data found) @henryadamsUK on twitter

## Summary

**Announcements by steel-making companies in the EU relating to 20 of the EU's 52 blast furnaces show that 60% of the 20 will close down by 2030.** The remaining 32 blast furnaces not covered by the above announcements are likely to face a similar or greater percentage closure by 2030 for reasons shown by Agora Energiewende, and also summarized by Friends of the Earth and briefly here:

AgoraEW show that 74% of EU's blast furnace capacity of 95 Mtpa faces closure or costly refit/rebuild by 2030 and that already 52% of 95 Mtpa has been lined up for 'green' primary steel-making and secondary steel-making (recycling). The industry announcements of closure of 60% of 20 blast furnaces thus fits well with AgoraEW's evidence and the two together imply that around 60% (to 74%) closure is likely to also apply to the remaining 32 blast furnaces by 2030.

The blast furnace closure plans collated below add more evidence to the implications of the AgoraEW findings as shown by FoE on the contracting size of the market for WCM coking coal. This is especially relevant as the mine would not reach full production until 2029 or 2030 when its EU market would already have significantly diminished.

## Background (i.e. how this document fits in to recent relevant publications)

This updated collation of blast furnace closure plans in the EU (& UK) provides useful new evidence which complements that shown in Agora Energiewende's '[Global Steel Transformation Tracker](#)'. This tracker has been summarized by the excellent Friends of the Earth briefing '[Green steel and Cumbrian coal](#)', and that in turn by articles in the Guardian: '[Cumbria coalmine redundant before it even opens, say campaigners](#)' and for example the Cumbria press: '[Market for Cumbrian coal declining fast as European steelmakers go green | News and Star](#)'.

I first heard of over half of the steel industry announcements that I've tabulated below from [tweets by Wido K Witecka](#) of AgoraEW who is very helpful in providing the latest news on the decarbonisation of the steel industry – a fast-moving and exciting topic (or at least in the EU if not the UK).

This pdf focuses mainly on the EU. However the UK blast furnace closure plans are also in the table below and the annex, and the likely impact of these closures on potential consumption of WCM coal is described in these pdfs:

[The impact of blast furnace closures on potential for use of WCM coking coal in the UK and EU](#)

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The question of whether there is a 'Need for the coal' (coking coal from Cumbria for the steel industry) was a core question set by the Planning Inspector for the Inquiry last September into West Cumbria Mining Ltd's proposal for a new deep coal mine at Whitehaven, Cumbria. WCM plans to export 87% of its coking coal at full production mainly to EU countries. However, WCM's timelines show that full production would not be reached until around 2029/30, and the recent evidence below shows that by 2030, a big percentage of EU's blast furnaces are likely to be closed down (and replaced with Electric Arc Furnaces and Direct Reduction furnaces). Also, 2 of the UK's 4 active blast furnaces face likely closure by 2030.

Big plans for blast furnace closures by 2030 in the EU (and UK) have been announced by steel-making companies since the Inquiry ended, which provide additional strong evidence that there will be no need for Cumbria's coking coal in the EU and UK.

The following spreadsheet table collates data of planned blast furnace closures in the EU from recent announcements by six of the larger companies making steel from ore in the EU, and links to the data sources are presented in the annex. All announcements relating to the table were made *after* the coal

mine Inquiry except for the TATA Port Talbot information – which was first broadcast many years ago (and we heard about TATA Ijmuiden’s change of direction from CCS to DRI+EAF during the inquiry).

Blast furnace closure timetable - some examples in Europe from announcements by steel companies									
<i>First EU, then UK</i>									
Company	Country / location	No. of BFs now	Number to be closed	By (year)	leaving	Number to be closed	By (year)	Year to have ZERO BFs	Date of announcement
ArcelorMittal	France	5	3	2030		2			04-Feb-22
Salzgitter AG	Germany	3	1	2026		2	2033	2033	02-Feb-22
Thyssenkrupp	Germany	4	2	2030		2	2045	2045	Mar-22
SSAB	Sweden + Finland	3	3	2030		0		2030	28-Jan-22
TATA Ijmuiden	Netherlands	2	1	2030		1	1 before 2037	2032 or before 2037	23-Nov-21
Liberty Steel	Ostrava, Czech Rep	3	2	2027	1?	unclear if 2 or 3 to be closed by 2027/30			08-Jul-22
<b>TOTALS:</b>	<b>EU sample above</b>	<b>20</b>	<b>12</b>	<b>2030</b>	← 12 out of 20 is 60%, and the 20 are 38% of the total of 52 BFs in the EU				
<b>Remaining BFs out of EU's 52 BFs:</b>		<b>32</b> ← Yet to see BF closure announcements by stated dates for these 32 but highly likely that more by 2030							
TATA Port Talbot	South Wales	2	1	2030	1	1	2035?	2035?	pre-inquiry
British Steel / Jingye	Scunthorpe	2 operational (out of 4)	1	c.2030	likely	1	2035 to 2040	according to whether H-DRI or CCS	28Jan22 & 27Apr22
									pre-inquiry ref
The 'TOTALS' in the table refer to 20 of EU's total 52 blast furnaces (source: Eurofer map), i.e. 38% - over a third of the lot.									
12 out of 20 is 60%, and 12 out of 52 is 23%      Thus almost a quarter of EU's blast furnaces already lined up for closure by 2030.									

**The table shows that 12 of the 20 blast furnaces listed (i.e. 60%) are to be closed by 2030<sup>1</sup>. The 20 blast furnaces are 38%, or over a third, of the total number of blast furnaces in the EU (52) according to a map of blast furnaces with associated list, in a publication by Eurofer<sup>2</sup>. Thus almost a quarter of EU’s 52 blast furnaces have already been lined up for closure by 2030, and for reasons I’ll explain below, the percent closure of around 60% is likely to apply also to the remaining 32 blast furnaces yet to be listed above. And could increase towards 74% closure.**

In all these cases the blast furnaces are to be replaced with Direct Reduction furnaces and/or Electric Arc Furnaces (or similar), which do not require coking coal as an essential big input<sup>3</sup>. The DR furnaces will use hydrogen instead of coal, though some may start by using a mix of hydrogen and carbon monoxide produced from methane until enough green hydrogen is available to increase the ratio to 100% green hydrogen (from the electrolysis of water using renewable energy).

12 of the 20 blast furnaces listed are the total numbers of blast furnaces in the EU owned by the companies shown in the table (Salzgitter, Thyssenkrupp, SSAB, TATA Steel). Of the other 8 blast furnaces listed, 3 are at Liberty Steel’s Ostrava site (it has other sites in the EU & UK) and 5 are those in France owned by the huge global company ArcelorMittal, which has steel-making sites in a number of EU countries (and beyond).

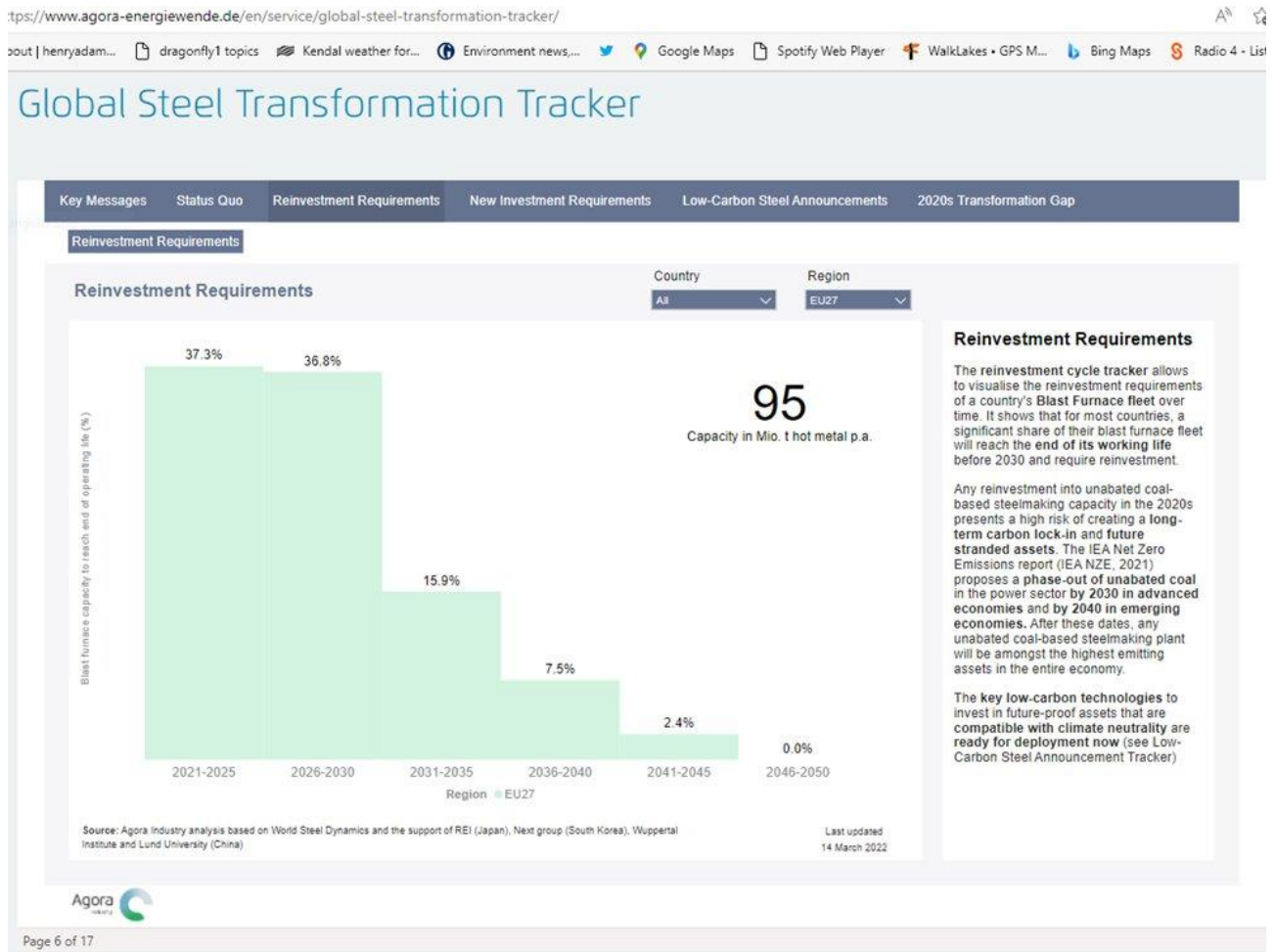
ArcelorMittal (the world’s second largest steel producer) has also announced plans to build new EAF and H-DRI furnaces in Spain, Germany and Belgium. These are likely to also result in blast furnace closure, and would enable more data to be added to the spreadsheet for the above table as soon as the closures are announced. So far ArcelorMittal has announced a total of over 10 Mtpa of H-DRI capacity planned for by 2030 in the EU. As with other H-DRI investment plans by other companies, continued cooperation by governments and the EU is an important factor to enable implementation of investments and BF closures.

<sup>1</sup> It may even be 13 because Liberty Steel have yet to be that specific on the number (Wido K Witecka of AgoraEW reckons at least 2 of the 3)

<sup>2</sup> ‘Where is steel made in Europe?’ (eurofer.eu) <https://www.eurofer.eu/about-steel/learn-about-steel/where-is-steel-made-in-europe/>

<sup>3</sup> EAFs commonly use between 1% and 2% of the amount of coal used by the BF-BOF process per unit weight of crude steel produced. This is for maintaining the layer of slag foam. Other sources of carbon can be used (e.g. pet coke & old rubber tyres), and there is research into biochar use.

It is highly likely that the steel companies owning the remaining 32 blast furnaces in the EU that have yet to appear in the table's spreadsheet will announce more blast furnace closures to take place by 2030. This is because 74% of EU's blast furnaces (capacity-wise) will by 2030 face a decision of end-of-life or a costly relining/refit, according to Agora Energiewende's 'Global Steel Transformation Tracker'<sup>4</sup>. AgoraEW shows that replacement with DRI furnaces and/or Electric Arc Furnaces is the more likely decision, and this is also being shown by announcements of plans by steel-making companies.



The chart shows the total EU BF-BOF capacity is now = 95 Mtpa = 100% This corresponds to 52 BFs

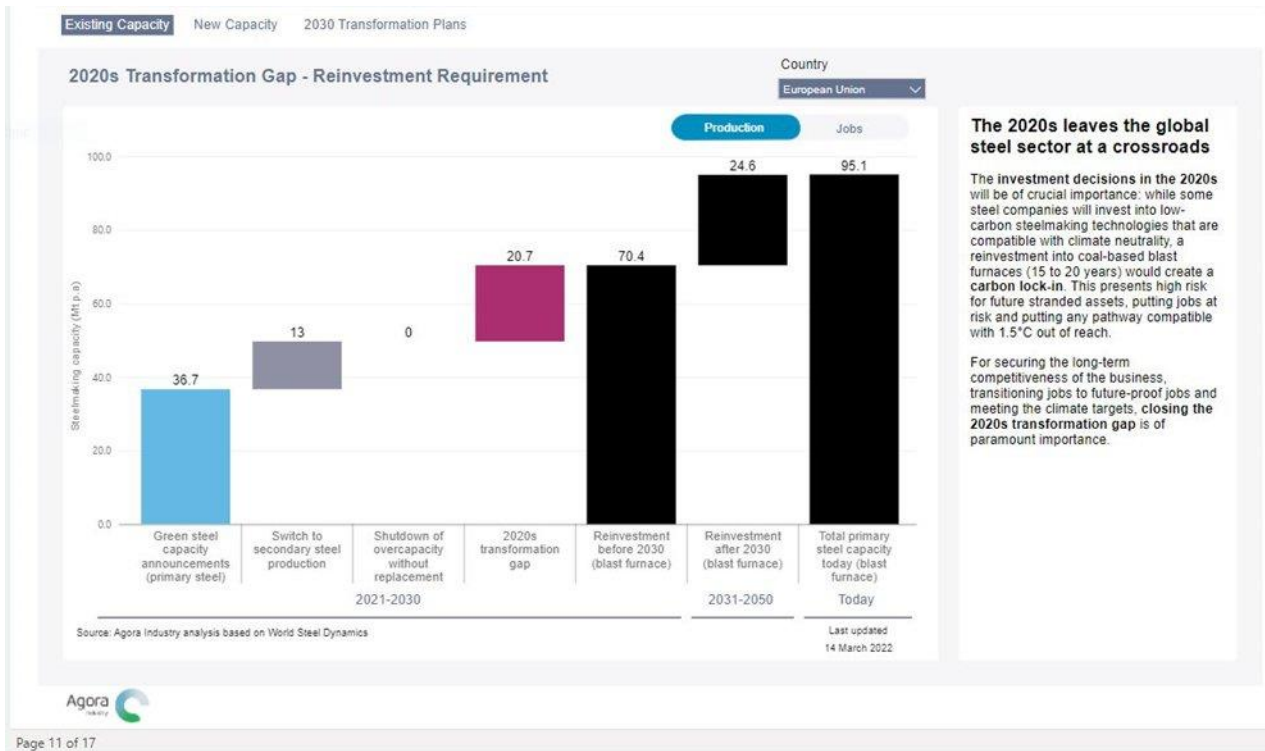
Adding the column percentages yields:

37.3% + 36.8% = **74.1% by 2030**      74.1% + 15.9% = **90% by 2035**      90% + 7.5% = **97.5% by 2040**

The following chart by AgoraEW in its GST Tracker shows that the EU's steel industry has already made big announcements of intentions to build new DRI furnaces & EAFs by 2030, which if realized would replace much of the 74% of EU blast furnace capacity (70Mtpa of 95Mtpa) that would face the decision point:

<sup>4</sup> 'Global Steel Transformation Tracker' (agora-energiewende.de)

<https://www.agora-energiewende.de/en/service/global-steel-transformation-tracker/>



36.7 + 13 = 49.7 Mtpa = **52%** of 95.1 Mtpa and 70.6% of 70.4 Mtpa      36.7 Mtpa = **38.6%** of 95.1 Mtpa & 52% of 70.4 Mtpa  
 'Green steel capacity' (primary steel) is via Direct Reduction (DRI+EAF) and Secondary steel production is recycling scrap via EAF

The chart shows that so far announcements by steel-making companies for green steel production plans by 2030 total 36.7 Mtpa primary steel-making capacity (that would be via new Direct Reduced Iron furnaces) and 13 Mtpa secondary steel capacity resulting from switches from coal-fed blast furnaces to more recycling (via new EAFs)<sup>5</sup>. Similar announcements are likely over the near future that could result in the capacity of end-of-life blast furnaces being all or mostly replaced with green steel and/or low carbon primary and secondary steel alternatives. The associated closures by 2030 of coal-fed blast furnaces would thus mean a huge reduction in consumption demand for coking coal that could reach around 60% to 74%, or at least above 50%.

This obviously has very strong implications on the 'Need for the coal' in the EU (and the UK), especially as EU countries comprise most of WCM's stated preferred export market.

A major factor affecting EU steel-making companies' decisions on which path to take at the end-of-life of blast furnaces is the expectation of an increasing cost of carbon for steel from coal-fed blast furnaces resulting from how the European Commission's 'Fit for 55' proposals will decarbonise the EU steel industry. The EC in 2021 proposed to decrease the free carbon allowances for the steel industry by 10% per year from 2026 to 2035, and also to set up a Carbon Border Adjustment Mechanism (CBAM).

Both of these carbon price factors would impact WCM's prospects. WCM would then be in a position of trying to counter the steel decarbonisation plans in the EU by offering cheaper coking coal to any climate-laggard steel-mill operators that might wish to prolong the use of their coal-fed blast furnaces. It would also be a very bad signal from the UK government to be giving the go-ahead to a high carbon project that

<sup>5</sup> Although the AgoraEW Global Steel Transformation Tracker does not appear to directly provide individual company data and source links for a breakdown of the 36.7Mtpa Green steel capacity, I have collated such data from company announcements of H-DRI / DRI and green steel capacities planned for production by 2030, and I can provide a spreadsheet or table on request. The figures so far total around 26 to over 30 Mtpa 'green steel' by 2030, which is around 30+% of the figure for crude steel production via the BF-BOF route in 2019. I would expect AgoraEW to find more information than I can for calculating a total capacity figure.

would aim to counter the efforts of the EU and its steel industry to decarbonise. And especially with a recent G7 aim to decarbonise its steel industry and while the UK is COP26 President.

I have separately calculated how the closure of EU and UK blast furnaces by 2030 would affect whether the EU+UK would provide a big enough market for WCM coal in 2029/30 when WCM aims to reach full production of 2.78 Mtpa<sup>6</sup>. I found that WCM would also need to sell a significant amount beyond the EU+UK. WCM also includes within its stated target market Bosnia & Herzegovina (which has 1 BF - owned by Arcelor Mittal), Serbia (1 BF- owned by HBIS Group), and Turkey – which has at least 12 BFs, possibly around 15 – and with a total BF capacity of around 15 Mtpa (source: GEM's GSPT – link in annex). Thus Turkey has a huge blast furnace capacity *at the moment*, and thus might be able to buy some or maybe all of any of the WCM coal that is surplus to what can be used in the EU. But AgoraEW's data for Turkey shows that most of its blast furnace fleet faces the refit or replace decision by 2030, so just how much of that BF capacity would remain by 2030 is uncertain, especially as FoE's recent briefing (also linked to below) gives reasons including EU's CBAM that could persuade Turkey to switch from BF-BOF to DRI + EAF especially when their blast furnaces reach decision points for costly refits or replacement with new coal-free furnaces.

My text above shows the likely state of play by 2030. Beyond 2030 as more blast furnaces reach the end-of-life decision point they too are likely to close down. According to AgoraEW the 74% of EU's blast furnace capacity facing the refit/replace decision by 2030 is likely to increase to 90% by 2035 and 98% by 2040 (taken from the duck-egg coloured bars in the 'Reinvestment requirements' chart).

WCM's consultant Wood Mackenzie suggested Asia as a market for WCM coal if the EU+UK and their steel industries stick to their "1.5C" commitments. It increasingly looks more likely that would be the scenario in the mid-2030's. This would make a mockery of claims that WCM would reduce emissions from shorter shipping distances as its coal could end up being exported to climate-laggard companies and countries in Asia with poorer controls on SO<sub>2</sub> pollution that is likely to be another restricting factor for sale of its high sulphur coal in the EU and UK.

Again the question: What sort of signal would it be for the UK government to give the go-ahead to this?

*Annex below with links to source evidence, helpful graphics and further reading*

*The present document is the first of a sequence of 3, the next two being:*

**[The impact of blast furnace closures on potential for use of WCM coking coal in the UK and EU](#)**

**[The UK](#)**

**[The EU](#)**

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<sup>6</sup> [www.dragonfly1.plus.com/How-blast-furnace-closures-would-affect-potential-for-use-of-Cumbria-coal.pdf](http://www.dragonfly1.plus.com/How-blast-furnace-closures-would-affect-potential-for-use-of-Cumbria-coal.pdf)

## Annex

### Links to steel industry sources from where I found data for the above spreadsheet table

Note that in all cases listed here except one (Liberty Ostrava), the plans that the companies announce are very explicit about the blast furnace closures – which is my main condition on inclusion here. In the case of Liberty Steel at Ostrava the blast furnace closure is more implicit in the announcement; I included it here as an exception to my condition because the company has signed a contract with Danieli for the two hybrid electric arc furnaces – which turns their plan into a higher degree of certainty of implementation than simply a plan.

**ArcelorMittal France** 4feb22 <https://corporate.arcelormittal.com/media/press-releases/arcelormittal-accelerates-its-decarbonisation-with-a-1-7-billion-investment-programme-in-france-supported-by-the-french-government>

**Salzgitter AG** 2feb22 <https://www.salzgitter-ag.com/en/newsroom/press-releases/details/translate-to-englisch-salzgitter-konzern-stellt-neue-strategie-salzgitter-ag-2030-vor-19181.html>

**Thyssenkrupp** March 2022

[https://d2zo35mdb530wx.cloudfront.net/\\_binary/UCPthyssenkruppAG/1f235bae-e540-4448-9059-810b28513465/20220316\\_Charts-on-Q1\\_21\\_22\\_Presentation\\_March\\_FINAL.pdf](https://d2zo35mdb530wx.cloudfront.net/_binary/UCPthyssenkruppAG/1f235bae-e540-4448-9059-810b28513465/20220316_Charts-on-Q1_21_22_Presentation_March_FINAL.pdf)

**SSAB** 28jan22 <https://www.ssab.com/news/2022/01/ssab-plans-a-new-nordic-production-system-and-to-bring-forward-the-green-transition>

**LIBERTY STEEL Group** 8jul22 **LIBERTY makes historic investment in Ostrava’s GREENSTEEL transformation** <https://libertysteelgroup.com/news/liberty-makes-historic-investment-in-ostravas-greensteel-transformation/> *Note that, unlike for the announcements I’ve linked to for the other steel companies in this document, in this case Liberty does not explicitly state the number of its 3 active blast furnaces (out of 4) it will close down by 2027, but it is obvious from its stated emissions reduction etc that at least 2 of the 3 will be closed down. I have asked Liberty Steel if it can clarify this and will update this document when/if there is a reply.*

**TATA Steel (Ijmuiden)** 23nov21 <https://www.tatasteeleurope.com/corporate/news/independent-study-by-fnv-and-tata-steel-green-steel-production-feasible#news>

*Note that strictly speaking TATA Ijmuiden announced its intention during the month of the Inquiry (September 2021) to change its direction from adding CCS to its BFs to replacing its BFs with DR and EAF.*

**TATA Port Talbot** 25may21 - Chris McDonald (MPI) speaks re end-of-life of the blast furnaces at TATA Steel Port Talbot, one this decade, the other in the 2030’s (one of several sources I read that stated that BF No.5 would reach end of life mid-2020’s <https://parliamentlive.tv/Event/Index/d9916d7a-cc66-4e97-9f24-e52d46c7b6b5>  
*And before that:*

30jan19 [Tata Steel restarts blast furnace in Port Talbot after life extension project - PES Media](#) (Blast Furnace 5)

14sep18 [Work begins on life extension project for Tata Steel blast furnace | Tata Steel in Europe \(tatasteeleurope.com\)](#)

2022 updates: (frustratingly neither the FT nor Guardian give an explicit date or ‘date by’ for closing the BFs)

22jul22 [Tata ‘needs £1.5bn in subsidies’ to keep Port Talbot steelworks open | Tata | The Guardian](#)

‘The decarbonisation plans would include the closure of the two blast furnaces, which would stop primary steelmaking, as the two electric arc furnaces are built. **Tata wants to begin the conversion process in 2025.**

Unions are fearful of job losses, given **it takes about two years to build an electric arc furnace**, which require fewer workers.’

21jul22 [Tata threatens to close Port Talbot steelworks without £1.5bn of aid \(FT\)](#) ‘Under decarbonisation plans, **Tata would close its two blast furnaces at Port Talbot, stop primary steelmaking and instead build two electric arc furnaces**, said people familiar with the details. These furnaces recycle scrap steel and are less carbon intensive than blast furnaces.’

**British Steel**

28Jan22 <https://agmetalmminer.com/2022/01/28/british-steel-moving-to-eaf-production-to-meet-carbon-emissions-targets/>

EAC Green steel inquiry 2022 (Lee Adcock for British Steel)

<https://committees.parliament.uk/oralevidence/10186/pdf/>

**Lee Adcock:** The low-carbon road map runs from now until 2035, and we think we can make significant reductions in line with the UK commitments for a 78% reduction and in line with the Sixth Carbon Budget over that time period. We would see electrification, a new electric arc furnace in the 2020s and then adoption of CCS at the end of this decade, 2030, 2031.

Q67 **Barry Gardiner:** Part of the £1.2 billion investment that was announced committed to the electric arc furnace in Teesside, is that right? Could you elaborate on how that is going to help reduce carbon emissions there?

**Lee Adcock:** That was talked about at the time. We have progressed and moved on, I would say, since then. Since the sale, once our new owners came in, we have been able to take the low-carbon road map forward and carry on developing and driving forward the reduction pathway. We have committed to an electric arc furnace. It may not be in Teesside—it could be Scunthorpe—but ultimately that electric arc furnace will replace one of the two existing blast furnaces, so that is how it will reduce carbon over that time period.



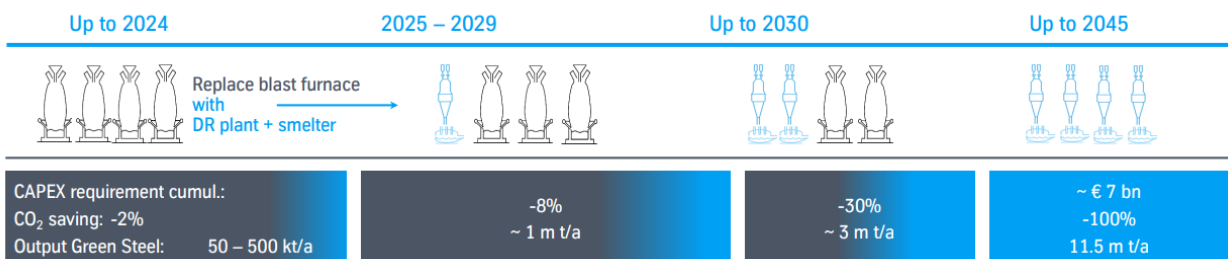
From the above transcript there appears to be a fairly high likelihood that one of the 2 operating BF’s at Scunthorpe will stop production by 2030 but the timing is not stated with 100% certainty as I guess it might be just after 2030 if the EAF starts up late in the 2020s and there’s a short overlap before the BF closes down. There is however an apparent good certainty it will be before 2035. I do not know whether British Steel’s Low Carbon Road Map may possibly clarify the timing of closure of the BF being replaced with an EAF ...

See Further reading below for extract of EAC green steel inquiry transcript that is re Cumbria coal mine

**Useful graphics summarizing the above**

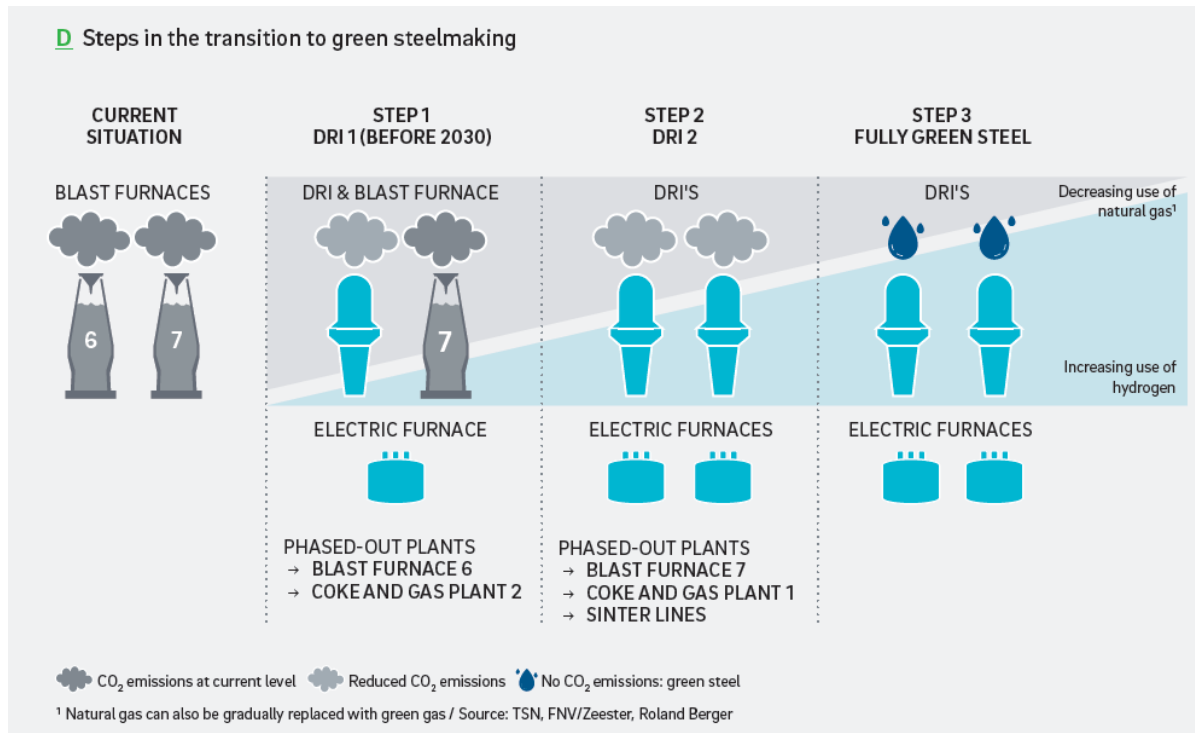
**Thyssenkrupp:** Graphic from March 2022 pdf of a Powerpoint presentation:  
The 4 BFs at Duisburg to be stepwise replaced with DR furnaces:

**Green transformation – Clearly defined master plan to reduce CO<sub>2</sub> emissions**



Source link for graphic above: [https://d2zo35mdb530wx.cloudfront.net/\\_binary/UCPthyssenkruppAG/1f235bae-e540-4448-9059-810b28513465/20220316\\_Charts-on-Q1\\_21\\_22\\_Presentation\\_March\\_FINAL.pdf](https://d2zo35mdb530wx.cloudfront.net/_binary/UCPthyssenkruppAG/1f235bae-e540-4448-9059-810b28513465/20220316_Charts-on-Q1_21_22_Presentation_March_FINAL.pdf)

## TATA Steel at Ijmuiden



Source link for graphic above:

[23nov21 TATA Steel \(Ijmuiden\) Independent study by FNV and Tata Steel: green steel production feasible](https://www.tatasteeleurope.com/corporate/news/independent-study-by-fnv-and-tata-steel-green-steel-production-feasible#news)  
<https://www.tatasteeleurope.com/corporate/news/independent-study-by-fnv-and-tata-steel-green-steel-production-feasible#news>

## Further reading and viewing

UK: 20may22 **Exclusive: British steel industry leaders do not require coal from proposed Cumbria mine** – Alex Thomson (Channel 4 News) – interviews Chris McDonald at MPI (shows their EAF at Middlesbrough), Ron Deelen (argues v shipping myth; would be exported), Jenkinson (shipping myth, UK “need” myth, Russia myth, [long-term] jobs myth – all debunked)

<https://www.channel4.com/news/exclusive-british-steel-industry-leaders-do-not-require-coal-from-proposed-cumbria-mine>

‘The government is set to decide soon whether a new coal mine in Cumbria should go ahead.

As politicians argue over the controversial proposal, very little has been heard from the industry that is supposed to benefit from it.

Leading figures in the British steel industry have told this programme that they do not require its coal.’

[Green steel and Cumbrian coal: a Friends of the Earth briefing | Friends of the Earth](https://friendsoftheearth.uk/climate/green-steel-and-cumbrian-coal-friends-earth-briefing) <<< *excellent*

<https://friendsoftheearth.uk/climate/green-steel-and-cumbrian-coal-friends-earth-briefing>

GEM GSPT [Global Steel Plant Tracker - Global Energy Monitor](https://globalenergymonitor.org/projects/global-steel-plant-tracker/)

<https://globalenergymonitor.org/projects/global-steel-plant-tracker/>

**Agora Energiewende and Wido K Witecka’s twitter threads are very useful**



'Global Steel Transformation Tracker' (agora-energiewende.de)

<https://www.agora-energiewende.de/en/service/global-steel-transformation-tracker/>

3nov21 [Wido K Witecka @KWitecka Nov 3, 2021](#) **The #globalsteel sector is at a crossroads**: before 2030, more than 70% of global coal-based steelmaking capacity (black) will reach their end-of-life and require reinvestment. Getting these reinvestment decisions in line with climate neutrality will be key! (Thread: 1/15) *Thread links to:*

November 2021 **Global Steel at a Crossroads** - Why the global steel sector needs to invest in climate-neutral technologies in the 2020s <https://www.agora-energiewende.de/en/publications/global-steel-at-a-crossroads/> *I've downloaded this report.*

1apr22 [Webinar - Global steel at the crossroads: Why the global steel sector has to invest in climate-neutral technologies in the 2020s \(agora-energiewende.de\)](#)

### **Valentin Vogl has expertise on steel decarbonisation such as H-DRI and for example:**

Vogl et al. (2021) **Phasing out the blast furnace to meet global climate targets**

[Valentin Vogl Olle Olsson Björn Nykvist](#) in Joule, ScienceDirect Published 20oct21

[Phasing out the blast furnace to meet global climate targets - ScienceDirect](#)

<https://www.sciencedirect.com/science/article/pii/S2542435121004359>

### **EAC 'green steel' Inquiry has oral evidence on 27apr22 on the Cumbria coal mine:**

**Caroline Lucas:** Have we mentioned the **Cumbrian coal mine** yet? Did I miss it? I am surprised Barry did not bring it up.

**Chair:** No. I was about to, but why don't you?

Q72 **Caroline Lucas:** Marvellous. You will know there are rumours that the Secretary of State is going to make an announcement on it next month, and I wondered how critical you think it is to the future of British Steel to have that coking plant go ahead.

**Lee Adcock:** At the moment we import coke and produce coke, so the road map has it laid out. It assumes electrification as well as a remaining blast furnace that would need coking coal. Ultimately, for us the Cumbrian mine comes down to a simple commercial decision. If the mine is available, we would look to see if it was commercially sensible to use coking coal from there. If it is not there, we would need to buy coking coal from abroad. I am not trying to avoid the question, but it does become a commercial decision. We have survived very well for a long time without having UK domestic coking coal, that is true, but if it is available and it is economic then potentially we could use it.

Q73 **Caroline Lucas:** But you are not lobbying for it?

**Lee Adcock:** No.

Q74 **Chair:** You would be a customer if it was competitive with your other sources, but not otherwise?

**Lee Adcock:** Yes. Like I say, it would ultimately be a commercial decision. If the mine was operating, we would look at it in the same way

as we do any other source of coking coal and decide whether we are going to use that or another source.

Q75 **Sir Robert Goodwill:** Obviously a lot of coking coal comes from Australia. Is it a drop in the ocean, the amount of fuel used to get it here, or is it a significant factor in terms of the carbon footprint of coal produced here in the UK, whether it is domestically produced or whether it is imported from the other side of the world?

**Lee Adcock:** I do not have the numbers, so I cannot answer it directly, but if I may give my thoughts on that. Obviously, while we are bringing materials from the other side of the world, there are more emissions associated with transport, that is very true. The Cumbrian mine has made those points and there is data out there on that.

Specifically in terms of our own CO2 footprint, around 82% is scope 1 and scope 2, so only around 7% or 8%, maybe 9%, depending on any given year, is associated with raw material supply, transport of raw materials or emissions from the production of the raw materials. Rightly, our focus is on scope 1 and scope 2 and we have not focused so much on reductions we could achieve through change in transport routes, because we should be focused on our direct emissions from our own installations first, I would say, before we move on to scope 3 emissions.

My comment: It appears that Lee Adcock does not know about the high sulphur content of West Cumbria coal, nor that his company have written to Cumbria County Council that they would unlikely be able to use it for that reason.

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