

# Response to West Cumbria Mining from authors of Green Alliance report

Professor Rebecca Willis, Professor Mike Berners-Lee, Rosie Watson, Mike Elm

14 June 2020

## Summary

In May 2020 West Cumbria Mining resubmitted a planning application for Woodhouse Colliery. The submission contained a statement of response to the Green Alliance report, produced by the above quoted authors. We do not accept the account of our report, or the arguments put forward by WCM. In this document we set out, in some detail, our response. In summary, we have four serious concerns about their statement of response:

- **Expertise and evidence:** WCM questions the expertise of the authors of the report despite their high professional standing and use of a wide range of evidence from industry and independent sources. In contrast, WCM claims to have worked with other experts but only names one: Dr Neil Bristow, and many statements made by WCM are not referenced.
- **Misrepresenting our report:** WCM claim inaccuracies in the Green Alliance report, including for example not recognising the difference between thermal coal and metallurgical coal (point 7), and not “accounting for the fact that emissions from steelmaking will... reduce in the future” (point 20). There are entire sections in the Green Alliance report discussing these issues that WCM claims are not addressed.
- **Inaccurate summary of the UK’s climate change commitments:** WCM makes a series of claims (e.g. points 13-19) about the legal responsibilities of the UK and individual companies on climate change matters. Many of these are wrong or misleading. An example of a misleading claim is that emissions occurring outside of the UK are not relevant, when in fact there is clear legal precedent showing that they are relevant. Further issues on climate change law are set out in the detailed response below.
- **Inaccurate summary of steel decarbonisation strategies:** Throughout their response (eg points 29-37) WCM dispute the evidence that we put forward for steel decarbonisation, claiming that coal from the mine will be required to produce steel over the next fifty years. However, this is not in line with the expert consensus from the steel industry itself, or from independent experts, who state that decarbonisation of steel is possible by mid-century or earlier. In setting out this position, we cite many industry and independent studies.

In short, it is clear that this document from WCM is not balanced or accurate. Cumbria County Council should therefore not rely on this document but should seek advice from a range of independent experts.

## Background

In January 2020, Green Alliance published their report, [The case against new coal mines in the UK](#), authored by Rebecca Willis, Mike Berners-Lee, Rosie Watson and Mike Elm.

In May 2020, West Cumbria Mining (WCM) issued a [statement of response to this report](#). WCM has circulated the original report, and the response, to Cumbria County Council and relevant Councillors, used it in a new Planning Application currently under consideration, and published it online.

As authors of the original report we understand the need for dialogue and evidence on these crucial issues. However, WCM's statement is misleading and inaccurate. Below, we reply to their statements in detail.

## Detailed response

Quotes in italics are from the WCM statement.

### WCM points 1-4: Introductory comments

*WCM claim: "WCM believes it prudent to present a Statement to the Committee on the Green Alliance Report to provide information with the aim of reassuring the Committee that the Green Alliance Report presents no evidence that should have caused the Committee to come to a different decision in either March or October 2019; nor should it justify any change in the Committee's decision now." WCM response to Green Alliance report p4.*

RESPONSE: It is correct that the Green Alliance report, published in January 2020, was not available to the Committee in March/October 2019. However, most of the evidence cited in the Green Alliance report, including statements from steel companies and other independent sources about decarbonisation of the steel industry, were already in the public domain.

Further, given that the Application has now been resubmitted, the evidence set out in the original report and this document can and should be considered by Officers and Councillors in reaching their decision, and will be submitted for consideration.

### WCM points 5 & 6: Expertise of report authors, and WCM advisers

*CLAIM: "The Green Alliance report (hereinafter referred to as "the Report") was co-authored by five persons, none of whom have specialist expertise or knowledge of the steel making industry, the coal mining industry, nor of the economics and market forces that drive these industries.*

*It is the over-riding view of the authors of this Statement, prepared by members of West Cumbria Mining Ltd and with specialist input from mining experts, steel industry experts, and coal quality and marketing experts, that*

*the Report is flawed and misleading.” WCM response to Green Alliance report p4.*

RESPONSE: These claims are misleading in four regards:

- The Report was co-authored by four people, not five as WCM claims.
- Whilst the lead authors do not have direct experience within the steel or coal sector and do not work in either industry, they do have relevant expertise. Both are Professors at Lancaster University, and have very significant, long-standing expertise in energy and climate issues. Rebecca Willis has held a number of senior advisory positions to government, including roles as Vice-Chair of the Sustainable Development Commission, advising the Prime Minister and First Ministers of the Devolved Administrations (2004-11); member of the Scientific Advisory Committee of UK Research and Innovation, with responsibility for overseeing public research spending on energy (2012-19); Appointed by Secretary of State Ed Davey to oversee a joint industry-community taskforce on energy issues (2014-15); etc. She currently holds a £1.2m UK Research and Innovation Fellowship, investigating energy and climate governance.
- Mike Berners-Lee is a leading expert in supply carbon management and has provided supply chain carbon assessments for some of the world’s largest organisations. He has also helped Cumbria County Council to adopt carbon targets. His books on climate change have been widely acclaimed by some of world’s most respected scientists and favourably reviewed in the journal Nature and the Financial Times. Neither lead author was paid for their authorship of this report; they undertook the work pro bono, given their concern about the issue.
- The report does not rely solely on the expertise of the authors – they reference and cite numerous academic and industry reports, such as those from the Energy Transitions Commission (ETC), which includes leading steel companies Arcelor Mittal and Tata.
- WCM claim ‘specialist input’ from experts, yet they do not disclose the names of these experts, except for the consultant that they commissioned to investigate the claims made by Green Alliance, Dr Neil Bristow. Dr Bristow is a paid consultant to the coal industry, but we cannot find evidence that he is known for expertise on climate science, climate policy or low carbon technologies. Neither do WCM provide references or sources for many statements that they make.
- We would request that WCM list the further expertise that they relied upon and also the criteria they use to select this evidence and expertise.

### **WCM point 7: Difference between thermal coal and metallurgical coal**

WCM CLAIM: *“Whilst the Report attempts to make a case against new coal mines in the UK, it does not recognise the clear difference between thermal coal (used for power generation) and metallurgical coal (used for steel making)” WCM response to Green Alliance report p4.*

RESPONSE: This is incorrect. Throughout the report, the authors stress the difference between thermal coal and metallurgical coal:

- In the section on UK legislation (p4), the report contrasts the legislation governing the use of coal for electricity generation (to be phased out by 2025) with the use of coal in steel making, clearly stating “There is currently no phase-out date for the use of coal in steel manufacturing”.
- There is an entire section of the report, entitled “How to reduce the climate impact of steelmaking” (p6), which specifically investigates the use of metallurgical coal as distinct from thermal coal.

### **WCM point 8: The terms ‘net zero’ and ‘zero carbon’**

WCM CLAIM: *“the Report confuses the terms ‘net zero’ and ‘zero carbon’ and in so doing it attempts to portray a zero coal future for steel making. No steel making company has either committed to, or recognises, a zero coal future for steel making, and no government or regulatory obligation proposes this.”* WCM response to Green Alliance report p4.

RESPONSE: This is incorrect. We quote a number of studies and reports, using the same terminology (‘net zero’, ‘zero carbon’, ‘carbon neutral’ ‘decarbonisation’, etc) that those reports use. The studies summarised include, for example:

- [The Energy Transitions Commission \(ETC\)](#), a group of industry, finance and academic experts, including two leading steel companies, Arcelor Mittal and Tata ([full list here](#)). This Commission concluded that (in their own words) “The ETC is confident that a complete decarbonization of the steelmaking industry is achievable by mid-century, with a modest impact on end-consumer prices and cost to the overall economy”<sup>1</sup>
- [Industrial Transformation 2050 – Pathways to Net-Zero Emissions from EU Heavy Industry](#), a report by Material Economics in collaboration with Cambridge University, the Wupperthal Institute and others. This report sets out three different “pathways to net-zero emissions for steel”.
- The steel company Arcelor Mittal, who [have a target to achieve ‘carbon neutrality’](#) by 2050.

### **WCM point 9: Emissions from transport of coal**

CLAIM: *“The Report does not recognise that if the West Cumbria Mining project does not go ahead, steel makers in the UK and Europe will simply continue their business as usual, which is to continue to import an equivalent amount and grade of coal from the east coast of the USA.”* WCM response to Green Alliance report p4.

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<sup>1</sup> [http://energy-transitions.org/sites/default/files/ETC\\_Consultation\\_Paper\\_-\\_Steel.pdf](http://energy-transitions.org/sites/default/files/ETC_Consultation_Paper_-_Steel.pdf) page 4

RESPONSE: The Report makes the case, backed up by economic analysis, that if the WCM project goes ahead, the availability of more metallurgical coal will have the effect of discouraging steel companies from investing in lower-carbon pathways for steelmaking. This point is confirmed by [expert evidence provided by Professor Paul Ekins](#), an eminent resource economist.

Emissions from transportation of coal are trivial compared with the much higher emissions from burning coal for steelmaking.

It is indeed true, however, that we absolutely do not recognise the inevitability that without the WCM mine '*steel makers in the UK and Europe will simply continue their business as usual*'. No rationale, justification or evidence is given for this assertion. Instead, we explore the credible and preferable alternatives in two sections of our report "How to reduce the climate impact of steel making" and "Future demand for coal in steel making".

### **WCM point 10: Jobs**

*CLAIM: "West Cumbria Mining's very clear position is that producing steel making coal in the UK for use in the UK and Europe, to the UK's high environmental standards, providing over 500 directly employed jobs for 50 years, is far preferable to an environmental and social perspective than simply importing it from thousands of miles away. In this respect there is agreement with the Report, which calls for a more active industrial strategy and investment in former mining and industrial areas. This is exactly what West Cumbria Mining will deliver, in an area where there are currently no other alternative investment plans and pockets of significant poverty and deprivation." WCM response to Green Alliance report p4.*

RESPONSE: WCM does not make a firm commitment to 500 jobs nor for those jobs to last for 50 years. On the other hand, our analysis of the declining need for metallurgical coal makes clear the long term vulnerability of any jobs created by the mine. By contrast to these hundreds of proposed high carbon, fragile jobs, in the Report's section "Industrial strategy and job creation" (p9) we cite a 2019 report by IPPR North estimating that up to 46,000 low carbon jobs could be created in the north of England in the power sector alone<sup>2</sup>. Furthermore, the creation of these low carbon jobs falls in line with the desire to develop a "cleaner, greener more resilient economy" as encouraged by the Secretary of State for Business on June 8 2020, among other measures for economic bounce back<sup>3</sup>.

### **WCM point 12: Will the mine be 'carbon neutral'?**

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<sup>2</sup> IPPR North, March 2019, A just transition:realising the opportunities of decarbonisation in the North of England

<sup>3</sup> Business Secretary launches working groups to help unleash Britain's growth potential <https://www.gov.uk/government/news/business-secretary-launches-working-groups-to-help-unleash-britains-growth-potential>

*CLAIM: “This question is raised by the Report on the basis of an out of context quote from the Council’s Addendum Report (October 2019). It is important to state and for the Committee to recall that, to date, West Cumbria Mining have never claimed that the mine would be carbon neutral” WCM response to Green Alliance report p5.*

RESPONSE: The Planning Officer’s Report to Cumbria County Council of October 2019 makes a ‘carbon neutral’ claim twice, not once (as we explain on page 3 of the Green Alliance report). WCM had many opportunities to correct the ‘carbon neutral’ claim, but did not.

### **WCM point 13: The Climate Change Act**

*CLAIM: “The Climate Change Act 2008 (as amended) requires the UK to have ‘net zero’ emissions by 2050. WCM is therefore bound by legislation to ensure its operations are net zero, or carbon neutral - i.e. that any GHG emissions arising from WCM’s operations are offset by an equivalent amount of carbon or GHG offset credits from 2050 onwards.” WCM response to Green Alliance report p5.*

RESPONSE: This is wrong in three important regards:

- The Climate Change Act is an obligation on the UK government, not on individual companies. It requires the government (including local government) to enact policy and legislation which will enable companies to reduce and, finally, eliminate emissions to the atmosphere.
- The Climate Change Act requires government to BOTH meet the statutory target of net-zero emissions by 2050, AND to meet five-yearly ‘carbon budgets’ in line with this trajectory. Therefore emissions must fall steadily, long before the 2050 deadline.
- WCM claims they can be compliant with the Act by “offsetting” emissions through buying carbon credits or removing carbon from the atmosphere. This is not necessarily the case. The government has not yet indicated how it will legislate for further emissions reductions beyond the 2030s. However the government’s independent advisers, [the Committee on Climate Change \(CCC\), have made clear](#) that the potential for carbon removal (‘offsetting’) is very limited, and is intended as a last resort. As shown by the CCC, removals will already be required to offset emissions from sectors where no alternative technology exists, primarily aviation and agriculture.

### **WCM points 14-19: Counting carbon emissions from the mine**

*CLAIM: “For the Report to suggest that non-UK and end-use emissions should be considered by the UK and WCM is to suggest that, in effect, the emissions will be double counted, as well as being likely to be highly inaccurate. Plainly this is not the correct approach.” WCM response to Green Alliance report p5.*

RESPONSE: This is misleading. WCM does not dispute the central estimate, that the coal extracted from the mine over 50 years would emit around 420 million tonnes CO<sub>2</sub>e. This is comparable to the total annual emissions from the UK each year, at 450 million tonnes. As the report makes clear, UN conventions of carbon accounting decree that emissions should be counted at source, i.e. where the coal is burned, not where it is extracted. Therefore, any portion of the coal extracted from the WCM mine that is exported to other countries for steelmaking will not figure in the UK's carbon accounts (as WCM correctly states).

However, this does not mean that these emissions are not the responsibility of the UK. As a signatory to the Paris Agreement, the UK has a legal obligation, beyond and irrespective of the Climate Change Act, to work collectively to limit global average temperature rise to 1.5°C, or at least “well below 2°C”. Therefore the UK has two linked, but separate, obligations:

- a) To reduce UK emissions to “at least” net zero by 2050, in line with the Climate Change Act; and
- b) To contribute to the Paris Agreement goal to limit temperature rises, as described above.

The Committee on Climate Change has repeatedly stated that the UK currently has a ‘policy gap’, i.e. it does not have a plan sufficient to meet its obligations under the Climate Change Act or the Paris Agreement. All branches of the UK government, including local government, are covered by the Act, meaning their policies and actions should be compliant with it. Local authorities are specifically mentioned in the Act, requiring them to take into account whether projects are likely to increase carbon emissions.

Under the Paris Agreement, it would not be legally sufficient for the UK to achieve net-zero by 2050 (which is the minimum requirement under The Climate Change Act) if it were supporting other countries in producing higher levels of emissions that are incompatible with limiting global average temperature rise to 1.5°C. The Court of Appeal’s recent judgement of February 2020 regarding the proposed expansion of Heathrow Airport was clear on this matter. Here the Court of Appeal explicitly recognised the Paris Agreement as Government Policy (§228 of the Court of Appeal [judgement](#)) and referenced the fact the Committee on Climate Change reported that CO<sub>2</sub> emissions would need to reach net zero by the 2040s in order to stay close to 1.5°C (§207 of the Court of Appeal [judgement](#)). Therefore, the UK Government has committed to “at least net zero” domestically by 2050 as well as to taking additional measures to ensure that global temperature levels are in line with the commitments contained in the Paris Agreement.

In conclusion, the Green Alliance report does not ‘double count’ emissions. It simply states the fact that emissions from burning coal that is extracted in the UK must be taken into account in decision-making, as shown by legal precedent.

### **WCM points 20-23: Emissions from steelmaking**

CLAIM: *“The Report fails to account for the fact that emissions from steel making will also reduce in the future” WCM response to Green Alliance report p5.*

RESPONSE: This is incorrect. There is an entire section in the Report, entitled “How to reduce the climate impact of steelmaking” (P6) which documents how the steel industry is innovating to reduce emissions and how such innovation could be sped up by good policy from government. This section also states that increasing the amount of metallurgical coal available to the steel industry, through opening new mines like the WCM mine, damages these initiatives because it depresses the price of metallurgical coal, and increases the relative cost of alternatives. Again, this point is confirmed by [expert evidence provided by Professor Paul Ekins](#), an eminent resource economist.

### **WCM points 24-29: Can Cumbrian Coal Influence the Development of New Steel Making Technologies?**

CLAIM: *“WCM has no influence whatsoever over how the steel makers use the coal or improve their processes to reduce emissions. The use of the coal is no part of the Proposed Development before this committee.” WCM response to Green Alliance report p6.*

RESPONSE: As detailed in the section entitled ‘counting carbon emissions from the mine’, all parts of UK government, including Cumbria County Council, have duties under planning regulations, the Climate Change Act and the Paris Agreement, to meet statutory obligations on climate change.

CLAIM: *“it cannot be true that a producer of less than 1% of global metallurgical coal will have any influence on the market, let alone moves in the steel making industry to curb its emissions.” WCM response to Green Alliance report p6.*

RESPONSE: Again, [expert evidence provided by Professor Paul Ekins](#) is relevant here. As detailed in the report, the steel industry is affected by the price and availability of metallurgical coal. The opening of another mine will affect both price and availability of coal and thus will influence the steel industry. The argument that it is a small market share, and therefore insignificant, is akin to saying that no one vote can sway an election. It is the combined decisions of all players in a market that creates and sustains that market.

### **WCM point 30: Alternatives to blast furnace steel production**

CLAIM: *“The Report states that steel can be produced using hydrogen, generated by renewable energy. However, the Report does not state that*

*large scale industrial production, storage and transport for this method has yet to be proven as practical, safe and cost effective. The Direct Reduced Iron (DRI) method of steel making cited in the Report uses natural gas, itself a fossil fuel; but the Report does not mention the complex geo-political issues with securing reliable supplies of natural gas. Therefore, the future success of DRI is far from certain and cannot be relied upon in the way that the Report suggests.” WCM response to Green Alliance report p6.*

RESPONSE: Our report summarises the current evidence on decarbonisation of the steel sector, including various alternative processes and technologies. For example, it summarises evidence from [The Energy Transitions Commission \(ETC\)](#), a group of industry, finance and academic experts, including two leading steel companies, Arcelor Mittal and Tata ([full list here](#)), and [Industrial Transformation 2050 – Pathways to Net-Zero Emissions from EU Heavy Industry](#), a report by Material Economics in collaboration with Cambridge University, the Wupperthal Institute and others. At no point do the Report authors make claims of their own, beyond that evidenced by other reports.

We would also note that, while DRI does indeed use gas, a fossil fuel, the carbon intensity of gas is much lower than for coal, leading to lower-carbon steel production.

### **WCM point 31: Environmental standards in different countries**

*CLAIM: “There is no acknowledgment in the Report that there are significantly higher environmental standards for the relevant industries in the UK when compared with the USA. Research shows that the UK is consistently ahead of the USA in environmental performance; indeed, President Trump is seeking to withdraw the USA from the Paris Climate Agreement. There are no greenhouse gas (GHG) emissions reduction targets in the USA.” WCM response to Green Alliance report p6.*

RESPONSE: WCM are correct to say that the UK has stronger GHG reduction targets than many countries, and that there are no such targets at a federal level in the USA (though there are at the level of many individual states). This statement by WCM contradicts their previous claims in points 14-19, that emissions from WCM coal burned in another country should not be taken into account. The fact that other countries have less effective carbon targets increases the imperative for the UK to consider emissions from coal extraction in the UK, under the terms of the Paris Agreement, and in order to avoid dangerous temperature rises.

### **WCM point 32: The use of steel in the green economy transition**

*CLAIM: “Since steel is the major component of many renewable energies such as wind turbines, metallurgical coal for steelmaking is needed more than*

*ever to build the green infrastructure needed to reduce emissions.” WCM response to Green Alliance report p7.*

RESPONSE: Steel is needed for many aspects of the transition to zero carbon, including the manufacture of wind turbines. We do not dispute this. However, this does not exempt the steel industry, or indeed any other industry, from addressing its own climate impacts.

Further, our calculations in response to this claim indicate that the proportion of the world's steel that will be needed for producing renewable infrastructure is small. An estimated 4m tonnes of steel would be enough to build wind turbines to generate, from wind alone, electricity equivalent to the whole of the UK's current electricity supply<sup>4</sup>. That is about 8 months' worth of UK steel production in 2017 or around 15 months' production from this mine.

### **WCM points 33-36: Halting blast furnace steel production**

*CLAIM: “There is no scalable, viable or proven technique to produce the steel needed for things such as wind turbines other than the use of coking coal.*

*To simply stop the use of coal in steel making today would cause the development of green infrastructure, and all other applications which steel is used for, to grind to a halt. Whilst alternative steel making technologies are being trialled, they are many decades away from becoming viable alternatives to coal.” WCM response to Green Alliance report p7.*

RESPONSE: At no point in the Report do we advocate stopping the use of coal in steel making “today”. However, we show, using reputable industry sources, that there is a credible path to decarbonisation of the steel sector over the coming decades, as required by the Paris Agreement and as required to prevent damaging global warming. This means that the use of coal will decrease between now and mid-century. Estimates for the pace of decarbonisation vary, but it is important to stress that we have not been able to find a single independent source which states that metallurgical coal will still be required to make steel by 2070, the lifetime of the mine, as claimed by WCM.

### **WCM point 35: “Offshoring” of emissions**

*CLAIM: To call for no new coal mines in the UK is therefore to condone mining of coal in countries with lower environmental standards and greater*

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<sup>4</sup> Based on 179 tonnes steel for 2MW turbines and a UK capacity factor of 20%. Data on steel content of turbines from 2015 Cost of Wind Energy Review - National Renewable Energy Laboratory, available at <https://www.nrel.gov/docs/fy17osti/66861.pdf> Other wind turbine data from Digest of UK Energy Statistics (DUKES) Chapter 6: Statistics on Energy from Renewable Sources.2019, available at <https://www.gov.uk/government/statistics/renewable-sources-of-energy-chapter-6-digest-of-united-kingdom-energy-statistics-dukes>

*environmental impact. This is known as ‘offshoring’ environmental responsibilities, and is frequently seen when individuals and communities are not willing to accept the reality or impacts of the requirements of their everyday lifestyles. WCM response to Green Alliance report p7.*

RESPONSE: Calling for no new coal mines in the UK does not mean supporting ‘offshoring’ of emissions. It means supporting the decarbonisation of the steel sector through strategies put forward by steel companies and other industry experts. It would be wrong indefinitely to continue using coal mined in countries with low environmental standards, which is why all UK policy should be aimed at decarbonisation and phasing out of coal in all uses.

We also note that earlier, in points 14-19 (p5), WCM claims that it is not responsible for the end-use emissions caused by coal combustion, particularly where the coal is used for steel making outside the UK. They wrongly state that carbon emissions outside the UK are not the UK’s responsibility. This is, in its own right, ‘offshoring’ responsibility.

### **WCM point 37: Future demand for coal in steelmaking**

*CLAIM: “WCM’s steel industry experts have predicted that, through research and development, in the next 30-40 years there will be some reduction in the demand for coal in steel making, as efficiencies are found. However, this does not equate, as the Report would suggest, to zero coal, or even zero carbon steel making.” WCM response to Green Alliance report p7*

RESPONSE: We have answered this substantive point, about the trajectory for steel decarbonisation, in our response to points 33 and 34 above, stating that a wide range of industry and academic sources suggest a trajectory of significant decarbonisation by 2050. However, we would encourage WCM to state which “steel industry experts” they have consulted in reaching their conclusions and cite any published reports or papers they rely upon.

### **WCM points 38-41: ‘Offsetting’ emissions**

*CLAIM: “Steel making can become net zero emissions through the use of carbon capture and storage and offsetting, but to describe a future zero carbon steel making scenario is disingenuous.” WCM response to Green Alliance report p7.*

RESPONSE: WCM describes the potential for ‘offsetting’ emissions from steelmaking, through removing carbon dioxide emitted through industrial processes and storing them geologically (‘carbon capture and storage’ or CCS). They are correct to state that strategies put forward for steel decarbonisation contain an element of offsetting. However, as stated by the Committee on Climate Change (CCC), the potential for carbon removal (‘offsetting’) is very limited and is intended as a last resort. As the CCC make clear, removals will already be required to offset emissions from sectors where no alternative technology exists, primarily aviation and agriculture, and aspects of industrial decarbonisation. The UK government has not yet

indicated what role it sees for carbon removal in its carbon budgets beyond the 2030s.

WCM suggests that the report by Material Economics entitled “Industrial Transformation 2050 - Pathways to Net Zero Emissions from EU Heavy Industry” support their position that decarbonisation of the steel industry is not possible. On the contrary, this report clearly states:

“truly deep cuts to emissions from steel production are, in fact, possible. The solution set is wide-ranging, spanning new production processes and increased recirculation of steel, as well as materials efficiency and circular economy business models.” (p68)

The report then goes on to detail all the technological pathways to steel decarbonisation, the same technologies that WCM claim will not be available. Specifically on ‘offsetting / CCS, Material Economics do put forward CCS as a possible contribution, alongside technological innovation, but not as the major component of steel decarbonisation. This reflects the Committee on Climate Change economy-wide analysis, that CCS will be necessary, but carbon removals (which include CCS) play a relatively small role alongside emissions reductions from technology and process change.

On the specific point of Arcelor Mittal’s climate strategy, a similar pathway is envisaged, focussing on technological change (which WCM states is not possible), with limited CCS (see, for example, p14 of Arcelor Mittal’s report).

#### **WCM point 42: The use of ‘scrap’ steel**

*CLAIM: “Arcelor Mittal’s Climate Action Report states that there is “not enough scrap available in the world to make all steel through the electric arc furnace”, a statement which WCM strongly agrees with, and which is evidenced by the current market and future predictions. Therefore, it is inevitable that coal will still be used in steel making for some decades to come.” WCM response to Green Alliance report p8.*

RESPONSE: We agree, based on multiple sources of evidence as referenced in our report, that there is not enough scrap to make **all** steel through this route. However, there is no logical connection between this statement and WCM’s second statement, that it is inevitable that coal will still be used in steelmaking. Recycled scrap steel is only one of a range of decarbonisation pathways.

#### **WCM points 43-44, and point 46: The Clean Steel Fund**

*CLAIM: “In August 2019 the UK Government announced a £250 million clean steel fund, to transition to lower carbon steel making. The timing of the announcement of this fund was five months after the Committee decision on WCM’s planning application, which was made in March 2019. 44. In addition, although the Fund was announced in 2019, it is more accurate to say that it is in the early stages - what actually happened in August 2019 was that the*

*Government launched a call for evidence to support the development of a clean steel fund. The Fund itself is not expected to be opened until 2024.” WCM response to Green Alliance report p8.*

RESPONSE: WCM state that the Committee decision was made in March 2019, but do not mention that this decision went before the Committee again for ratification in October 2019, after the government’s announcement. Thus WCM could have alerted the Committee to the Government’s plans. In fact, other groups did so. The Fund will begin in 2024, just as WCM proposes to open its mine. Thus the Fund will provide support for clean steel, at the exact moment that WCM has committed investment in coal for high-carbon steel.

#### **WCM point 45: Crossrail**

*CLAIM: “The Crossrail project in London has seen 26 miles of tunnel built using almost exclusively British made steel. With the significant infrastructure spend announced by the UK Chancellor in his budget on 11 March 2020, there has never been a more important time for sustainable British steel.” WCM response to Green Alliance report p8.*

RESPONSE: We agree that steel plays a vital role in the UK economy and in society, as stated in our response to point 32. It does not follow that such steel should continue to be made with large amounts of coal indefinitely, and as we have set out throughout this document, there are many industry and academic sources which offer evidence on steel decarbonisation pathways.

In short, making a case for steel does not make the case for the mine.

#### **WCM points 47-54 concluding comments**

*CLAIM: “WCM has reviewed and responded to the Green Alliance Report with the assistance of in-house and independent experts. The Report contains many statements and assertions which are inaccurate, partial and/ or misleading.*

*In this Statement, WCM aims to provide CCC Development Control and Regulatory Committee members with a balanced and accurate picture of the coal and steel industry and markets, supplies, and its commitments to reduce emissions in line with the United Nations Framework Convention on Climate Change ‘Paris Agreement’ and the UK requirements of the Climate Change Act.” WCM response to Green Alliance report p8.*

RESPONSE: WCM say they have been assisted by “in-house and independent experts”, yet only one name is given: Dr Neil Bristow. In addition, their report contains many assertions that are not referenced. If they rely on others’ expertise, they should name their sources.

In contrast, our report is based on a review of a wide range of evidence from independent, industry and academic sources, which we reference throughout.

For the same reasons, we dispute WCM's claim that their evidence is "balanced and accurate", and in this document we have detailed many ways in which it is not.

In this response to WCM, we have offered evidence that is more robust, transparent and independent than that presented by WCM, in reply to each of the 54 paragraphs of the report. We have demonstrated, using external sources, that there are serious inaccuracies in WCM's response.

In summary, we do not believe that Cumbria County Council should rely on WCM's evidence on these points. We would recommend that the County Council seeks advice from a range of independent experts.

**Professor Rebecca Willis**  
**Professor Mike Berners-Lee**  
**Rosie Watson**  
**Mike Elm**

**14 June 2020.**