

**SLACC/BW/3**

**TOWN AND COUNTRY PLANNING ACT 1990**

**Application by West Cumbria Mining Ltd**

**Development of a new underground metallurgical coal mine and  
associated development at Former Marchon Site, Pow Beck Valley  
and area from Marchon Site to St Bees Coast**

**Planning Inspectorate Reference: APP/H0900/V/21/3271069**

**Local Planning Authority Reference: 4/17/9007**

**Date of Inquiry: 7<sup>th</sup> September 2021**

**REBUTTAL PROOF OF EVIDENCE (CLIMATE CHANGE)**

**of**

**Sir Robert T. Watson**

**Professor Emeritus at the University of East Anglia**

**10 September, 2021**

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## **1. INTRODUCTION**

- 1.1. In this rebuttal proof I respond to the Proof of Evidence of Caroline Leatherdale [WCM/CL/1], the Proof of Evidence of Mark Kirkbride [WCM/MAK/1] and the Rebuttal Proof of Evidence of Caroline Leatherdale [WCM/CL/3].
- 1.2. This rebuttal should be read together with my original Proof of Evidence [SLACC/BW/1] and Appendices [SLACC/BW/2].
- 1.3. As with my original Proof of Evidence, save where I indicate to the contrary, the facts and matters contained in this proof of evidence are within my own knowledge. Where facts and matters are not within my own knowledge, I have identified my sources of information or understanding.

## **2. CURRENT CLIMATE SCIENCE**

- 2.1. I note that my evidence on climate science is not disputed, i.e. the causes and current impacts of climate change that I set out in section 2 of my Proof Of Evidence have not been questioned.
- 2.2. Nor has there been any dispute that the impacts of climate change are already being felt – including in the UK - where key impacts include risk of flooding, high temperatures and their impacts on human health and well-being, risks to nature and food and water supplies, and emerging pests and diseases. (SLACC/BW/1 section 2.3)
- 2.3. It also appears to be agreed that the adverse consequences of climate change will become even more significant in the coming decades. (BW/1 2.3.2)

### **3. INTERNATIONAL IMPLICATIONS OF PERMITTING THE MINE**

3.1. The rebuttals from West Cumbria Mining in relation to climate change also do not appear to dispute (as set out in my Original Proof of Evidence, section 5.2) that the UK permitting such a mine would signal that the UK is not serious about its climate ambition or its promises of world leadership on this issue, and would give other countries a rationale for permitting their own “local” fossil fuel supplies. This could thus have serious knock-on effects, decreasing global ambition to tackle this existential threat to humanity.

3.2. On the issue of the UK’s international emissions obligations, as I set out in sections 3.2.4 and 5.2 [SLACC/BW/1] of my original Proof of Evidence, the UK has both a legal (under the Paris Agreement) and a moral duty to assume a leadership role on climate change. Given that the proposed mine would result in such significant emissions, the UK would not be able to meet its obligation to lead on climate change were it to grant consent for the mine.

### **4. CURRENT CLIMATE POLICIES**

4.1. Caroline Leatherdale (CL/1) claims that the proposed development does not compromise the ability of the UK to meet the objectives of the sixth carbon budget, nor the cap on emissions under the Carbon Budget Order 2021, and that the ability of Government to meet its international emission obligations is not compromised.

4.2. I do not agree with this analysis. To take her points in turn:

4.2.1. To meet the stringent targets set out in the sixth carbon budget (as set out in the Carbon Budget Order 2021), the government will have to take far-reaching action across all sectors of the economy. As the Climate Change Committee has made clear on repeated occasions, current plans and policies are not adequate

to meet the legislated targets. In other words, the UK is currently not on course to meet these targets. Therefore it will have to implement further policy measures to close the ‘policy gap’.

4.2.2. Ms Leatherdale implies, at paragraphs 3.9 and 3.10 [WCM/CL/1], that the government has a wide range of options to choose from in implementing policy to meet these targets. First, I would assert otherwise. Achieving this level of GHG reductions will require significant, rapid action across all sectors of the economy, with all industrial sectors contributing. There is neither the time nor the ‘headroom’ in carbon budgets to pick and choose from a wide range of options, allowing certain sectors to be ‘laggards’. Lord Deben, Chair of the Climate Change Committee has highlighted the “critical importance of . . . planning authorities considering fully the implications of their decisions on climate targets.”<sup>1</sup> The UK targets simply cannot be met if such impacts are ignored in planning decisions on the basis that other government policies will fix the problem.

4.2.3. In paragraph 3.10, Ms Leatherdale suggests that ‘stricter policy or legislative requirements’ can be introduced later if steps taken are inadequate. This is incorrect: the government cannot take a ‘wait-and-see’ approach to meeting the net zero target. There is simply not sufficient time, and in any event, it must ‘future proof’ its decisions, for example, preventing or disincentivising investment in high-carbon infrastructure, to avoid ‘carbon lock-in’. Carbon emissions are not a tap that can be turned on and off; they are the product of economic and industrial systems that are path-dependent (for example, many investment cycles in heavy industry last twenty years or more). Further, as I set out in paragraph 3.3.6 [SLACC/BW/1] in my original Proof Of Evidence, the timing of emission reductions is crucial, because it is total cumulative emissions that affect warming. Thus a ‘wait-and-see’ approach has both negative environmental and economic consequences.

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4.3. Mr Kirkbride suggests at paragraph 10.1.1 of his main Proof [WCM/MAK/1] that the Climate Change Committee (CCC) “has now accepted that if critical raw materials can be produced in Britain, then this is better than imports and their creation of offshored emissions”. This is a misinterpretation of the CCC position. The CCC acknowledges that the UK does indeed have significant offshored emissions, which should be accounted for. But this is a separate issue to the need to decarbonise industry, including the steel industry. In short, the UK must do both things: a) properly account for, and reduce, imports of high-carbon products such as coal; and b) pursue vigorous efforts to decarbonise industry. These ends are not contradictory.

4.4. At paragraph 10.1.3 of his main Proof Mr Kirkbride refers to a press release which is focussed on coal use in the power sector. It is true that the Government made the factual statement in the notes section of the press release that the policy applied only “to coal used to generate electricity” and not to “other coal consumers such as the steel industry, nor to domestic coal mines.”<sup>2</sup> It is not clear what Mr Kirkbride seeks to draw from this aside from the obvious fact that the coal phaseout is not directly relevant to whether this proposal can go forward. The government has also made more general statements on the need to phase out coal per se – for example, in a statement more recent than the one Mr Kirkbride cites, Prime Minister Boris Johnson stated “we want the developed world to kick the coal habit entirely by 2030 and the developing world by 2040”.<sup>3</sup> It has backed these up with policy and funding, such as the industrial decarbonisation strategy, and the clean steel fund. However, as CCC analysis makes clear, further actions are needed to reach the legally-mandated carbon budgets.

4.5. I would note in this regard that the CCC makes recommendations to each Government department as part of its annual Progress Report to Parliament. The 2021 Report includes a recommendation to the Ministry of Housing Communities and Local Government (MHCLG) that it “Ensure all departmental policy decisions,

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<sup>2</sup> <https://www.gov.uk/government/news/end-to-coal-power-brought-forward-to-october-2024>

<sup>3</sup> <https://www.energynewsline.co.uk/energy-live-news/boris-johnson-we-are-going-to-be-extremely-bold-at-cop26/>

planning decisions and procurement decisions, are consistent with the Net Zero goal and reflect the latest understanding of climate risks.” Unlike other recommendations, many of which are for the future, the timing of this recommendation is described as “Now and ongoing”. (Appendix R1)

## **5. CAN NEW MINES BE OPENED?**

5.1. In paragraphs 3.1 – 3.5 [WCM/CL/3], Ms Leatherdale disputes my analysis (in paragraph 5.1.1) of the International Energy Agency’s report which clearly states that existing sources of coking coal are sufficient to cover demand through to 2050. Ms Leatherdale in essence makes two counter-claims: first, that industry forecasting (cf Wood Mackenzie’s forecasts) say that existing sources of coking coal are not sufficient; and second, that there is no benefit in ‘using up’ coal in an existing mine rather than opening a new one. To take these points in turn:

### *Overall demand for coal*

5.2. My evidence does not go into detail on this issue but of course future demand for coal depends, among other factors, on the ability of the steel industry to transition away from coal, supported by effective government action. It could come to pass that such a transition does not materialise, as industries do not adapt, and government support is not forthcoming. If this were to be the case, then more coal would be burned, with severe consequences for climate change, as the IEA report makes clear. In other words, it is possible to assume, as Ms Leatherdale appears to, that demand for coal will be higher than the IEA suggests – and that, effectively, climate action fails. This is not an assumption I am prepared to make, given the severe dangers we face if we push past the 1.5 degree threshold. Making such assumptions of failure becomes a self-fulfilling prophecy, if it helps to make the case for consenting additional coal mining. Thus the only assumption that has moral (and legal) standing is to assume that we will take commensurate action to achieve global climate targets.

5.3. I note also that multiple experts in this Inquiry including Paul Ekins and Jonathan Cullen have challenged the forecasts made by Mr Truman and Wood Mackenzie and noted that they are, among other things, inconsistent with the legislated future emissions limits in the UK and EU. [JC/3 1.3.1, 2.5; PE/3 2.13] Ms Leatherdale points out that Wood Mackenzie's forecasts are not consistent with the IEA's conclusion on the need for additional sources of coking coal. [CL/3 3.2] This is not surprising given that Wood Mackenzie's forecast expects carbon budgets to be exceeded and legislated targets missed. Furthermore, the IEA Report was written and then peer-reviewed by world-class experts, whereas the Wood Mackenzie Report has been produced for this inquiry. In relation to Ms Leatherdale stating that the IEA Report "does not appear to take into account the need for different types of coking coal" this appears to rely on Mr Truman's evidence that he is "not aware" that the IEA Report accounts for different coal quality types. [JT/3 3.37] Again, based on the fact that this is a peer-reviewed report from the pre-eminent independent global energy authority, Mr Truman's lack of awareness on this point does not seem an adequate basis to draw the conclusion that this was overlooked.

#### *Investing in new mines*

5.4. In paragraph 3.3 of her rebuttal proof [WCM/CL/3] Ms Leatherdale suggests that it would be appropriate to open the Cumbria mine, to benefit from 'lower-emissions sources'; whilst leaving other coal (from existing mines) in the ground. By 'lower emissions' it appears she is referring to the emissions from the mine site itself. These (while considerable) are a small fraction of the emissions from the use of the coal. Of course, these arguments rely on the 'perfect substitution' argument, i.e. that any coal mined in Cumbria will result in coal not being mined elsewhere in the world, an argument that Prof Ekins disproves conclusively in his evidence, which I fully support. To paraphrase, all the evidence strongly suggests that the production of coal in Cumbria will result in substantial additional greenhouse gas emissions. Further, the claim that this mine is lower emission is based on disputed claims by WCM - in particular the estimates in the Ecolyse Report, coupled with offsets, which Prof Grubb's and Ekin's evidence addresses in detail [MG/3 & PE/4], showing that these

are an unreliable basis on which to assume that the mine will have lower – let alone net zero – emissions.

**Declaration**

The evidence which I have prepared and provide for this appeal reference APP/H0900/V/21/3271069 in this proof of evidence is true, and I confirm that the opinions expressed are my true opinions.

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# Joint Recommendations

## 2021 Report to Parliament

# Climate Change Committee Recommendations

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## Central Government departments:

- **Table A1:** Cabinet Office and Number 10
- **Table A2:** COP Unit, the Foreign, Commonwealth and Development Office (FCDO) and the Department for International Trade (DIT)
- **Table A3:** HM Treasury (HMT)
- **Table A4:** Department for Business, Energy and Industrial Strategy (BEIS)
- **Table A5:** Department for Environment, Food and Rural Affairs (Defra)
- **Table A6:** Department for Transport (DfT)
- **Table A7:** Ministry of Housing, Communities and Local Government (MHCLG)
- **Table A8:** Department for Digital, Culture, Media and Sport (DCMS)
- **Table A9:** Department for Education (DfE)
- **Table A10:** Department for Work and Pensions (DWP)
- **Table A11:** Department of Health and Social Care (DHSC)
- **Table A12:** Home Office and the Ministry of Justice (MoJ)
- **Table A13:** Ministry of Defence (MoD)

## Regulators and the Office for National Statistics:

- **Table A14:** Office of Gas and Electricity Markets (Ofgem)
- **Table A15:** Water Services Regulation Authority (Ofwat)
- **Table A16:** Office for National Statistics (ONS)

## Devolved administrations:

- **Table A17:** The Scottish Government
- **Table A18:** The Welsh Government
- **Table A19:** The Northern Ireland Executive

Table A7 Recommendations for the Ministry of Housing, Communities and Local Government (MHCLG)		Timing
Cross-cutting	<p>Support <b>local government</b> to play a full role in the Net Zero transition, including through increased resourcing, guidance, involvement in local area energy plans, statutory reporting on the emissions from their estate and reforming the planning framework to enable delivery of low-carbon and climate resilient measures.</p> <p>This is likely to require additional funding for staffing and resources for local delivery plans, alongside a 'duty to collaborate' to encourage authorities to work with local, regional and national partners to deliver their climate ambitions.</p>	<p>2021-23 <b>Priority recommendation</b></p> <p>(funding for local areas at next budget)</p>
	<p>Ensure that <b>adaptation is integrated</b> into major upcoming policies in the next two years related to the priority CCRA3 risks for which MHCLG has lead responsibility, coordinating work with other relevant departments as necessary:</p> <ul style="list-style-type: none"> <li>Risks to human health, wellbeing and productivity from increased exposure to heat in homes and buildings (with DHSC).</li> <li>In addition, for the coming five-year period (2023-2028), MHCLG should outline appropriate actions in the next National Adaptation Programme to address the adaptation gap identified for the risks and opportunities in the CCRA for which it is the lead department (see Adaptation Report Annex).</li> </ul>	<p>By 2023 <b>Priority recommendation</b></p>
	<p>Working with BEIS, DWP, DfE and the Home Office, develop a strategy for a <b>Net Zero workforce</b> that ensures a just transition for workers transitioning from high-carbon to low-carbon and climate-resilient jobs, integrates relevant skills into the UK's education framework and actively monitors the risks and opportunities arising from the transition. This strategy should include the development and roll-out of plans for training and skills, with buildings and manufacturing being priority areas.</p>	<p>2021 <b>Priority recommendation</b></p>
	<p>Ensure that developments and infrastructure are compliant with <b>Net Zero</b> and appropriately <b>resilient to climate change</b> through proposed amendments to the Planning Bill.</p>	<p>2021-22</p>
	<p>Introduce an <b>urban greenspace</b> target to reverse the decline and ensure towns and cities are adapted to more frequent heatwaves in the future and that the 25-Year Plan goals are met.</p>	<p>2022</p>
	<p>Ensure all departmental policy decisions, planning decisions and procurement decisions, are consistent with the <b>Net Zero goal</b> and reflect the latest understanding of <b>climate risks</b>.</p>	<p>Now and ongoing</p>
Flooding	<p>Ensure that all types of current and future <b>flood risk</b> are included in policies to assess flood risk to new developments. Housing targets for local authorities should take account of flood risk, amongst other environmental issues. Assessments and management of flood risk in new developments must as a minimum:</p> <ul style="list-style-type: none"> <li>Include evidence that the development will be safe over its full lifetime, with a consideration of the downstream interactions and impacts of new developments (i.e. it should not increase flooding in other areas).</li> <li>Include an assessment of current and future flood risk under both 2°C and 4°C global climate scenarios.</li> <li>Assess and manage the risk of flooding to local infrastructure as well as housing.</li> <li>Include a consideration of better preparedness as set out in the Government's recent FCERM Policy Statement.</li> <li>Ensure there are properly funded and trained staff in local authorities.</li> </ul>	<p>2022</p>
	<p>To help improve the <b>information on SuDS and surface water flood risk</b>, urgently begin collecting data on sewer capacity and SuDS location, type and capacity. This would bring the level of information in line with that for river and coastal flood risk defences.</p>	<p>2021</p>
	<p>To address the issue of increased risk of <b>surface water flooding</b> in new developments, commit to ensuring that new developments do not put more water into the public sewers than what was there before, taking into account climate change. To incentivise this, end the automatic right to connect to the public sewer; planning reforms should enact Schedule 3 of the Flood and Water Management Act (2010); and technical SuDS standards should be made mandatory and be updated to deliver SuDS that provide multiple economic, social and environmental benefits.</p>	<p>2022</p>
	<p>The <b>consultation process for surface water flood risk</b> must be improved. This should be done by adding statutory consultees for all development type and sizes. Consultees must have the appropriate skills to provide advice on surface water flood mitigation. Ensure that Local Authorities fully justify planning decisions where applications can proceed either without or going against formal flood risk mitigation advice.</p>	<p>2022</p>

Table A7 Recommendations for the Ministry of Housing, Communities and Local Government (MHCLG)		Timing
Buildings	<p>Implement a <b>strong set of standards – with robust enforcement</b> – that ensure both new and existing buildings are designed for a changing climate and deliver high levels of energy efficiency and low-carbon heat. Including:</p> <ul style="list-style-type: none"> <li>Publish robust definitions of the Future Homes Standard and Future Buildings Standard which are legislated in advance of 2023 and ensure no fossil fuels are burnt in new buildings. This must include coordination with DfE, MoJ, DHSC as well as BEIS and HMT.</li> <li>Regulate the overheating requirement as set out in the Future Buildings Standard consultation. Expand the requirement to cover refurbishments of existing buildings and conversions of non-residential buildings to residential.</li> <li>Work with BEIS on the Heat and Buildings Strategy and use standards to set a clear direction for retrofit across the buildings stock.</li> <li>Ensure that the remit of the new buildings safety regulator covers climate change mitigation and adaptation, strengthened through an explicit responsibility for sustainability; and is fully equipped to monitor and enforce compliance with buildings standards.</li> <li>Work with HM Treasury to ensure that local authorities are properly funded to enforce buildings standards.</li> <li>Close loopholes allowing homes to be built which do not meet the current minimum standards for new dwellings. This includes provisions around the expiry of planning permission and permitted development rights relating to change of use. Make accurate performance testing and reporting widespread, committing developers to the standards they advertise.</li> </ul>	2021-22 <b>Priority recommendation</b>
	<p>Develop and implement plans to make all <b>public-sector buildings and vehicle fleets</b> within the department's remit zero-carbon in the long term, switching to ultra-low emission vehicles by 2030 and halving emissions from public buildings by 2032. This must be part of a coherent cross-government strategy including an updated set of Greening the Government commitments, multi-year spending commitments and annual reporting.</p>	2021-22
	<p>Implement improvements to the <b>Energy Performance Certificate (EPC) and Standard Assessment Procedure (SAP)</b> framework, including:</p> <ul style="list-style-type: none"> <li>Ensuring EPCs drive deployment of the necessary energy efficiency measures and do so on a holistic basis to address overheating, ventilation, and moisture-risk.</li> <li>Supporting delivery objectives across both energy efficiency and low-carbon heat, and valuing properly the benefits of low-carbon and flexible technologies.</li> <li>Formally integrating a forward trajectory for declining grid carbon-intensity, in line with Government projections.</li> <li>Addressing wider issues of quality/robustness, with a commitment to integrate in-use performance metrics from 2023.</li> <li>Plans for the future role of Green Building Passports.</li> </ul>	2022
Construction	<p>Step up efforts to deliver the <b>waste prevention and resource efficiency</b> improvements required as part of the pathway to Net Zero, including by:</p> <ul style="list-style-type: none"> <li>Setting out how levels of resource efficiency improvements in construction identified within the Industrial Decarbonisation Strategy will be delivered.</li> <li>Beginning to develop and implement any additional policies needed to deliver these resource efficiency improvements, by the end of 2022.</li> <li>Ensure cross-departmental working, potentially through new cross-Whitehall governance focused on resource efficiency.</li> </ul>	Spring 2022 <b>Priority recommendation</b>  (end 2022 for additional policies)
	<p>Develop policies (with BEIS, Defra and DfT) to drive more <b>resource-efficient construction</b> and use of existing low-carbon materials, including a substantial increase in the use of <b>wood in construction</b>. Policies should include:</p> <ul style="list-style-type: none"> <li>Reviewing and clarifying the position of structural timber in the ban on combustible materials, underpinned by further research and testing where necessary, and ensuring there are no barriers to the safe use of timber in buildings. Buildings safety regulator to play a role in overseeing this on an ongoing basis.</li> <li>The development of a fully funded policy roadmap on the use of timber, including policies to support the development of UK wood supply chains.</li> <li>Finalising the reporting methodology for whole-life carbon standards.</li> <li>Setting out a plan for phasing in mandatory whole-life reporting followed by minimum whole-life standards for all buildings, roads and infrastructure by 2025, with differentiated targets by function, scale, and public/private construction.</li> </ul>	Spring 2022
	<p>Set out a strategy for decarbonisation of <b>off-road mobile machinery</b> and work with industry to identify potential policies to increase uptake of low-carbon off-road mobile machinery. This will require work across BEIS, MHCLG, DfT and Defra.</p>	2021