

**Angela Jones  
Minerals and Waste Planning  
Cumbria County Council**

**30 September 2020**

Dear Ms Jones

**West Cumbria Mining: Planning application (ref 4/17/9007)**

**Statement on the proposed 2049 end-date for this development**

As independent experts with specialist knowledge in this area (listed at the end of this statement), we write to express our concern about your recommendation that the Planning Committee approve this proposal.

In particular, we do not agree that placing a condition on development, requiring the mine to cease operation in 2049, complies with the UK's legal obligations on climate change, namely the Climate Change Act and the Paris Agreement.

Climate change is driven by cumulative emissions of greenhouse gases, which stay in the atmosphere for decades or centuries. Correspondingly, a 2049 end-date is wholly inappropriate, for two reasons: first, it is in direct contradiction to the way that both the Climate Change Act and the Paris Agreement are designed; and second, it will hinder the ability of UK industry, particularly the steel industry, to innovate and decarbonise. We examine each of these below.

### **1. The UK's legal obligations on climate change: The Climate Change Act and the Paris Agreement**

The Climate Change Act (2009, amended 2019) sets statutory limits on greenhouse gas (GHG) emissions from the UK economy, with an end goal of net-zero emissions by 2050. A crucial feature of the Act is the establishment of five-yearly 'carbon budgets', as advised by the Committee on Climate Change, and as agreed by Government and Parliament. These budgets are designed to establish a smooth trajectory for GHG reduction over the coming decades. In December this year, the Committee on Climate Change will publish its recommendation on the level of the Sixth Carbon Budget, covering the period 2033-2037. Budgets for the late 2030s and 2040s will be developed subsequently. In order to reach net-zero, each budget period will involve significant reductions in GHG emissions. Details of future budgets are not yet developed, but analysis by the Committee on Climate Change makes it clear that all sectors of the economy, including industry, will be expected to contribute to emissions reduction.<sup>1</sup>

The 2050 date for net-zero is the end point in a process, not a sudden halt. Emissions in the years leading up to 2050 are just as significant. As GHGs remain in the atmosphere for many years, it is the total, cumulative amount of GHGs that is of concern.

Under the Paris Agreement, the UK is legally obliged to work with other signatories to limit global average temperature rises to well below 2°C and pursue efforts to limit the temperature increase to 1.5°C. The February 2020 Court of Appeal Judgement on Heathrow Expansion explicitly recognised the Paris Agreement as Government policy. In order to limit global average temperature rises to 1.5°C, global emissions must peak by 2030 (sooner for the UK and other industrialised nations) and then decline rapidly after this date, according to the Intergovernmental Panel on Climate Change.<sup>2</sup>

Taking into account both the science of climate change, and the UK's legal obligations, therefore, it is clear that the 2049 end-date for the mine is a wholly inadequate proposal. Emissions in each and every one of the intervening years (ie from the opening of the mine until 2049) are just as important.

## **2. Emissions reduction from coal and steel**

As described above, over the period to 2050, UK industry will need to continue to reduce emissions of GHGs. For steel, this will mean widespread use of technologies such as Electric Arc Furnaces (EAF) and Direct Reduced Iron (DRI) using natural gas; as well as adoption of new technologies such as hydrogen direct reduction (H-DRI). The Energy Transitions Commission states that “a complete decarbonisation of the steelmaking industry is achievable by mid-century”.<sup>3</sup> However, it is also clear from the ETC report that this is not a foregone conclusion. An additional large-scale, low-cost, and stable supply of metallurgical coal in the UK is in our judgment highly likely to reduce the incentives for steel producers in the UK and EU to accelerate adoption of alternative low-carbon technologies.

In any event, however, it is not the case that the steelmaking industry will continue to use steady amounts of coal for the next thirty years, and then stop suddenly in 2050. The exact trajectory depends both on technological advances and climate legislation (such as a carbon price). However, it is expected that considerable progress will be made in the 2030s and 2040s, meaning that demand for metallurgical coal will decline rather than remaining steady.

Further, the demand for steel itself (and therefore coal) is likely to decline. For example, the Committee on Climate Change assumes a 30% reduction in steel use in UK under its scenario to achieve net-zero emissions.

For the reasons stated above, we consider that imposing a 2049 end-date on this development is both arbitrary and inadequate, and will hinder the UK's efforts to reduce GHG emissions. We would urge you to rethink your recommendation that this mine be approved.

### ***Signatories:***

**Professor Paul Ekins OBE**, Director; Professor of Resources and Environmental Policy, UCL Institute for Sustainable Resources, University College London

**Dr. Pao-Yu Oei**, Head of Research Group CoalExit, Technische Universität Berlin

**Professor Michael Grubb**, Professor of Energy and Climate Change at University College London (Institute of Sustainable Resources & Energy Institute) and Hub Leader for Sustainability, ESRC Programme on Rebuilding Macroeconomics

**Professor John Barrett**, Chair in Energy and Climate Policy, University of Leeds

**Dr Piotr Śpięwanowski**, Assistant Professor, Institute of Economics, Polish Academy of Sciences (specialist in commodity markets & mining sector)

**Professor Peter Newell**, University of Sussex and co-founder and research director of the Rapid Transition Alliance

**Professor Adrian Smith**, Professor of Technology & Society, SPRU - Science Policy Research Unit, University of Sussex

**Dr Matthew Lockwood**, Senior Lecturer in Energy Policy, Sussex Energy Group, Science Policy Research Unit, University of Sussex Business School

**Valentin Vogl, MSc**, PhD student in steel industry transitions, Environmental and Energy Systems Studies, Lund University, Sweden

**Professor Lars J. Nilsson**, Professor of Environmental and Energy Systems, Lund University; IPCC lead author on industry in the 6<sup>th</sup> assessment report.

**Dr Max Åhman**, Associate Professor and Senior Lecturer, Environmental and Energy Systems Studies, Lund University

**Professor Rebecca Willis**, Professor in Practice, Lancaster Environment Centre.

**Professor Mike Berners-Lee**, Lancaster Environment Centre; director, Small World Consulting.

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<sup>1</sup> Net zero – The UK's contribution to stopping global warming, Committee on Climate Change, May 2019

<sup>2</sup> Intergovernmental Panel on Climate Change, 2018. Global Warming of 1.5°C. IPCC Special Report, 2018.

<sup>3</sup> Energy Transitions Commission, July 2018, 'Reaching zero carbon emissions from steel', consultation paper