



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 September 2021

CLOSING STATEMENT
of
SOUTH LAKES ACTION ON CLIMATE
CHANGE TOWARDS TRANSITION (SLACC)

1 October 2021

INTRODUCTION

1. In March 2021 the UK, as hosts of the forthcoming Conference of Parties of the United Nations Framework Convention on Climate Change (COP 26), hosted a joint event with the International Energy Agency (“**IEA**”) – a net zero summit with top energy and climate leaders from more than 40 countries.¹ The discussions at that event fed into the IEA’s report: Net Zero by 2050 A Roadmap for the Global Energy Sector.² As Professor Sir Robert Watson described during his evidence on behalf of SLACC, the IEA is the one international organisation that is pre-eminent in dealing with energy issues, as every government goes to the IEA to get their advice on energy. Their reports are very well prepared as they bring together the best experts in the world for particular issues and their documents are heavily peer reviewed by other experts and by governments. Indeed, one of the peer reviewers of the IEA Net Zero Report is Andrew Purvis of World Steel.³
2. The IEA Report deals in a number of places with coal for power generation, but it also deals directly with decarbonising the steel industry and with coking coal.⁴ The IEA comes to a very clear conclusion on coking coal:

“No new coal mines or extensions of existing ones are needed in the NZE as coal demand declines precipitously. Demand for coking coal falls at a slightly slower rate than for steam coal, but existing sources of production are sufficient to cover demand through to 2050.”⁵ (emphasis added)

So while the IEA anticipates that there will be use of coking coal globally in 2050, with CCS, that is all from **existing** sources. There is no need for new sources of coking coal.
3. When the UK and other G7 countries met in Cornwall earlier this year, they issued a communique which notes the clear roadmap provided by the IEA and commits

¹ CD 8.1 pg 1783.

² CD 8.1.

³ CD 8.16 pg 1787.

⁴ It is clear from the definitions in the IEA Report and from the full definitions in the detailed database documentation (not the one pager put to Sir Robert) and from the expert and technical nature of the information provided to the IEA and the rigorous peer review mechanism through which the report goes that the Applicant’s suggestions that this did not take into account different types of coking coal lacks credence.

⁵ Emphasis added CD 8.16 pg 1883 (internal pg 103)

the G7 countries to support climate ambitions by tangible actions across all sectors of their economies and societies.⁶

4. Both SLACC and FOE have relied on the IEA's Net Zero Report and its conclusion on coking coal. In response, the Applicant sought to question the expertise and thoroughness with which the IEA's report was compiled. This has been rather a running theme in the Applicant's case. Throughout the inquiry the Applicant has downplayed the evidence provided by world leading experts in highly technical matters, such as climate change and the economics of commodities market (dismissed as "ivory tower" or "policy" people), in favour of the opinions of their witnesses, characterised as those that 'do', ie those involved in the mining industry. This dichotomy is false and dangerous.
5. It has been deployed to mask fundamental weaknesses in the Applicant's case: matters asserted which are unevidenced and demonstrably flawed, which the Inspector and Secretary of State are asked to take on trust; a need case couched as sensible industry forecasting which ignores the UK and EU's climate obligations and assumes failure; an ever shifting case on what coal will actually be mined, such that, very unusually, on the final day of the inquiry, it is still unclear what the quality of the coal is that will be produced.⁷

⁶ SLACC/BW/2 pg 327.

⁷ SLACC's case is that this is required to be stipulated by condition, that the mine would produce metallurgical coal of the same specification as the 2017 application, 2018 amendment and March and October 2019 ORs and Committee resolutions.

STRUCTURE

6. When the Secretary of State called in this application on 11 March 2021, he indicated the matters on which he wished to be informed,⁸ and the Inspector in his CMC Summary Note of 14 June 2021 listed the other matters he considered relevant. In light of these issues, and the preliminary matter that has arisen during the inquiry, this Closing is structured as follows:

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⁸ SLACC/PB/3, pg 26.

PRELIMINARY MATTERS – THE “AMENDED” SCHEME

7. The Applicant has made a substantial amendment to the application, well after its application was submitted to Cumbria County Council (“**the Council**”) and called in by the Secretary of State. In short, the Applicant has, via its Statement of Case⁹ in May 2021 and proofs of evidence of 10 August 2021,¹⁰ amended its application from a development with a sub-surface conveyor installed by a cut and cover method, to a development with a sub-surface conveyor installed partly by a cut and cover method and partly via trenchless tunnelling using pipe jacking.
8. SLACC has provided separate legal submissions, dated 30 September 2020, addressing this amendment. In short, on the basis of the authorities cited in those submissions and the admissions by Mr Thistlethwaite that the amendment relates to an aspect of the development which is crucial to whether the development comes forward and central to the grant of planning permission, the Secretary of State does not have the power to consider the substantial amended, which fails to comply with sections 65 and 327A of the Town and Country Planning Act 1990 (“**the 1990 Act**”).
9. Furthermore, if the amended development is considered, it would be unlawful for the Secretary of State to grant permission as the development has not been subject to a lawful environmental impact assessment (“**EIA**”) in respect of the new construction method or its impacts, given that information which should have been provided in order for these impacts to be understood will only be provided after the grant of permission, via discharge of conditions. That approach prevents the Inspector and the Secretary of State from taking into account the effects on the environment of the project at the earliest possible stage and is directly contrary to authority that environmental matters can be dealt with by Grampian-style conditions.
10. On the penultimate evening of the inquiry it emerged that the Applicant is seeking to make good the lack of compliance with sections 65 and 327A of the 1990 Act by

⁹ CD15.1, §118(a) (hard copy p. 44)

¹⁰ WCM/PS/1, §5.4; WCM/ST/1 §5.147.

adding two plans showing long sections of the pipe jacking scheme at the two ancient woodlands. As set out in SLACC's legal submissions, these plans raise rather than allay concerns, given their divergence from the plan proffered by WCM earlier in the inquiry and discussed in the Ecology Roundtable. They therefore do not address in any meaningful way the flaws detailed in §55 of the Legal Submissions.

11. For the detailed reasons given in the Legal Submissions, SLACC asks that the Inspector recommend that the Secretary of State consider the proposed development on the basis of the original 'cut and cover' method of conveyor construction, on which the Parties have provided evidence and which is addressed in detail in the application documents, in compliance with sections 65 and 327A of the 1990 Act.

CLIMATE CHANGE IMPACTS AND NPPF CHAPTER 14

Seriousness of the Issue

12. The Parties agree that human-induced climate change is happening and that it has dangerous consequences for both natural and human systems, in particular on human health and wellbeing. Prof Sir Robert Wilson, former chair of the Intergovernmental Panel on Climate Change and of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and of the World Meteorological Organisation, gave an overview of those impacts in his evidence. He described the heightened flood risk, the impacts of higher temperatures on human health and on biodiversity; the impacts on food systems caused by extreme weather.
13. 2020 alone saw an exceptionally wet February in the UK, with storms Ciara and Dennis causing widespread flooding, followed by an exceptionally sunny spring resulting in a sharp reduction in soil moisture and record minimum spring river flows and depleted reservoir stocks.¹¹ July then saw the UK's third hottest day on

¹¹ CD 8.7 Royal Meteorological Society State of the UK Climate 2020 pgs 43-44.

record and Southern England experienced “one of the most significant heatwaves of the last 60 years during early August 2020”.¹² Storms Ellen and Francis in late August were separated by only a few days. They each brought wind gusts of 46–57.5 mph across inland areas and 57.5–69 mph across exposed coastal locations—particularly affecting Wales and southwest England.¹³

14. Sir Robert’s evidence also shows that the effects of dangerous climate change are likely to become even more severe in the coming decades, particularly if warming is not kept to 1.5°C. This impact will be felt by the generations that follow us – those young now will face far greater impacts and more serious dangers if immediate action is not taken to curb GHG emissions.
15. All parties to the inquiry agree with this. But that consensus position should not blunt the force of what is being agreed. Climate change is a very serious issue. It is, in the rawest sense of the word, an emergency; an existential threat. And that is how it can and should be treated by planning policy and in planning decision-making.
16. Paragraph 152 of the NPPF requires that planning shape places to achieve radical reductions in GHG emissions. The UK’s Net Zero obligation requires the UK government to ensure that the “net UK carbon account” for 2050 is “at least 100%” lower than the 1990 baseline.¹⁴ The CCC’s Sixth Carbon Budget is set at a reduction of 78% by 2035, so a 63% reduction from the 2019 position in GHG.¹⁵ The UK’s Nationally Determined Contribution under the Paris Agreement requires reductions of GHG of 68% by 2030.¹⁶ Professor Grubb’s evidence is that methane emissions are a major contributor to climate change and the IPCC’s work, including the recent Sixth Assessment Report (dubbed the “Code Red” report by the UN Secretary General) shows need radical reductions in methane emissions in the next decade to stay on course for 1.5° temperature warming.¹⁷

¹² CD 8.7 pgs 45-46.

¹³ CD 8.7 pg 50.

¹⁴ Section 1 of the Climate Change Act 2008.

¹⁵ CD 8.10 hard copy pg 1008.

¹⁶ Ibid.

¹⁷ SLACC/MG/1 §4.20; SLACC/MB/3 §3.3

17. In light of all these key commitments, all of which focus on, and require, significant reductions in GHG emissions, Mr Bedwell’s position is that while paragraph 152 of the NPPF must be read as a whole, the wording requiring the planning system (which included decision-making) to shape places in ways that contribute to a radical reduction in GHG emissions is the meat of the policy.
18. Furthermore paragraph 7 of the NPPF defines “sustainable development” as “meeting the needs of the present without compromising the ability of future generations to meet their own needs”. This is clearly an important consideration when considering the climate impact of proposed development. Development which gives short-term benefit to the developer, but which leads to climate harms (which will impact ever more seriously on future generations) is the definition of unsustainable development under paragraph 7 of the NPPF.
19. This has been strengthened in the updated NPPF, which adds the 17 Global Goals for Sustainable Development from the UN’s “Transforming our World: the 2030 Agenda for Sustainable Development” to paragraph 7. A number of these goals address matters integral to mitigating climate change, and Goal 13 requires urgent action to be taken to combat climate change and its impacts (acknowledging that the UN Framework Convention on Climate Change is the primary international forum for negotiating the global response to climate change).
20. The undisputed evidence before the inquiry is that climate change and biodiversity loss is making the UN’s Sustainable Development Goals even more difficult to achieve.¹⁸
21. In light of the seriousness of climate change and its effects, the urgency with which action to address that must be taken, and the focus of paragraph 152 on radical reductions in GHG emissions and the need to prevent compromising the ability of future generations from meeting their own needs, it is clear that the climate

¹⁸ SLACC/BW/2 pg 35.

change impact of the proposal is central to whether it should be granted planning permission.

22. Mr Thistlethwaite's analysis in this regard was left wanting. He did not refer to paragraph 7 of the NPPF, despite asserting the centrality of "sustainable development" to the way in which the NPPF operates. And he focused his analysis solely on the first sentence of paragraph 152 of the NPPF, referring to the planning system supporting the transition to a low-carbon future in a changing climate. His explanation for the latter was that he focused on the part of the paragraph that the mine was seeking to achieve. In SLACC's view that is not a robust approach.
23. Furthermore, addressing climate change is not just a question of having net zero emissions in 2050. As both Professor Grubb and Sir Robert said, the key issue is what we do now and up to 2030. Sir Robert clarified in oral evidence that all the models suggest quite convincingly that we would have to reduce our GHG emissions globally by 2030, for even a 50:50 chance for further emissions reductions, to meet net zero and be on a pathway to 1.5°. All emissions matter. And every fraction of a degree of warming increases the adverse effects of climate change.
24. The Applicant put to Sir Robert that his objection was "nothing personal to this coal mine", and that, given the climate change, any new development that produces GHGs – housing development, factories, other development, would fall foul of the objection. Yes, obviously – that is the science of how climate works: an accumulation of very many sources of emissions. To dismiss or seek to weaken the force of Sir Robert's evidence on that basis is to negate or misunderstand the science.
25. The CCC's position is clear: action is required across all areas and all sectors and the crucial decade is the 2020s.¹⁹ The UK needs to strengthen reductions in the

¹⁹ CD8.10, pg 1019.

Fifth Carbon Budget and is not on track to meet the Fourth or Fifth carbon budgets. Very clearly there is no wiggle room.

26. The real question is what the, in light of the science, are the implications in terms of planning policy and planning balance, focusing on this development. This is not a housing development or a factory. It is a new source of fossil fuel, to be mined from under the sea bed, for the next 25 years, resulting in emissions from just the operation of the mine that, frankly, dwarf those from other developments. Not only that, but it is development that results in years of methane that would otherwise remain trapped underground being released directly into the atmosphere. At precisely the time which the CCC and the IPCC have told us is the most crucial for securing rapid reductions to keep the 1.5°C temperature goal alive.

Methane, Methane Capture and Overall GHG Emissions

27. Professor Grubb's evidence, based on the recent IPCC Sixth Assessment Report,²⁰ is that methane is a major contributor to climate change. Methane emissions have been rising rapidly, with global concentrations increased by more than 150%; they account for almost a third of global temperature increase to date. Global methane emissions may be decisive in whether temperatures exceed 1.5°C in the next couple of decades.
28. Neither Mr Thistlethwaite nor Ms Leatherdale disagreed with Professor Grubb's evidence and Mr Thistlethwaite stated that methane is "infinitely more potent". Nor did they disagree that the emissions in the next two decades will be crucial.
29. The Applicant relies on two crucial pieces of evidence to address the GHG emissions that will be caused by the operation of the mine. The first is the Ecolyse Report, which I shall refer to as Ecoyse 2. Throughout the inquiry, SLACC has

²⁰ CD 8.32 Figure SPM.2, Para A2.1. For a comparison of GWPs at different time horizons see Chapter 7, Table 7.15: the GWP-20 for fossil fuel methane (comparison with CO2 impact over a 20-year horizon) is 82.5, compared to the GWP-100 value of 29.8

identified errors and omissions in the report.²¹ The second is Mr Tonks' evidence about the methane capture system.

30. While Mr Tonks has long years of experience in dealing with ventilation systems for mines, he accepted that the mining technique that will be adopted by WCM is a "recent hybrid" technique which will be introduced into the UK for the first time. Accordingly neither he nor anyone else has experience of deploying and operating a methane capture system in such a mine. In those circumstances, it would have been prudent for Mr Tonks to make conservative assumptions about, for example, the potential for leakage or for machinery not working 100% perfectly for the whole period of the capture system operating. But he did not do so.
31. Mr Tonks' analysis is based crucially on his analysis on §§5.2 – 5.4 of his proof, where he determines how much methane will be left in the coal after it has been cut; travelled through the mine and crushed, once in the mine and again on the surface. If Mr Tonks' numbers are just a little off, then the methane release from the coal which would not be captured would be significantly affected: Professor Grubb calculated that if only an additional 1% of the methane remained in the coal (ie 6% not 5%), then this would increase the calculation of methane emissions by 20%. That is a serious underestimate when the total unmitigated emissions from the mine are, conservatively, 8,543,484 tonnes CO₂e.²²
32. Mr Tonks based his key analysis on something nowhere in his evidence – figures produced by the National Coal Board sometime between 1987 and 1989 by the technical department which "arrived at a figure" that any particle of coal less than 5mm would not have any residual gas in it. Mr Tonks' other key figure – that 60% of the methane would be released when the coal is cut, was also based on NCB numbers. There is no evidence that this work is still in current use by anyone other than Mr Tonks and no evidence those numbers apply to a new hybrid form of mining.

²¹ And indeed throughout the life of the Application SLACC has flagged errors and omissions in the Applicant's approach to assessing GHG.

²² Ecolyse 2 pg 40.

33. Second, Mr Tonks assumed that the coal will be crushed to 6 to 8mm – he takes the average to be 7 and says “I have been involved in crushing previously in my career” and the “majority of it is a lot smaller than 7 mil” -- so he has assumed (he says conservatively) that two thirds is smaller than 5 mil and has no methane at all, and that the remaining third which does retain its methane therefore has 5% - ie. 1/3 of 15%. Mr Tonks provided no source for these figures or supporting this methodology. He offered to “provide a note” but the note which came did not make good this omission.
34. If Mr Tonks is wrong on his “about 25% figure” – say it is only 20% - that means that there is still 20% of the methane in the coal when it leaves the mine and comes to surface. Even assuming that he is then right that two thirds is removed at the final crushing, that would mean 6.66% methane leakage – which is a third more than his estimate.
35. If Mr Tonks is wrong about the proportion under 5 mil - if say that is only half of particles being below 5 mil and not two thirds, that would mean that instead of 5% leakage you would have 7.5% leakage, which is 50% more than his estimate on methane leakage.
36. While Mr Tonks was at pains to point out that there will be monitoring across the mine, this would not actually validate how much methane is lost in the cut coal that leaves processing – it would just tell you how much you are capturing at different points. While periodical testing of the coal may be possible to see how much residual methane was in the coal, that was not proposed by Mr Tonks.
37. Mr Tonks did provide a further document, which set out methane calculations for emissions which he had left out of account: those emissions to atmosphere from the construction phase of the development when the construction enters the coal measures and into the Main and Bannock banks. Neither WCM nor Ecolyse nor Mr Tonks thought to assess these emissions: Professor Grubb pointed out the omission very clearly in his rebuttal proof.

38. While that omission was addressed through the late provision of the calculation, the fact that it was left out of account and then the criticism was not simply accepted and acted on (as with other areas where Professor Grubb pointed out omissions, for example the embedded CO₂) calls into question Mr Tonks' judgment.
39. Finally on the methane capture system, it is highly unusual that application plans showing that system were in effect only provided this morning, and only by amending the name of the building over which Mr Tonks superimposed his image of the methane capture system in his evidence. Mr Thistlethwaite accepted that when he undertook his analysis, not a single application document or plan actually showed the methane capture scheme. Mr Tonks was never informed of the volume of reject material that has to be stored in the Clean Coal and Reject Building (latterly renamed); and this is in the context of the amendment of the application to remove the middlings coal, meaning there is every possibility that more rather than less reject material is required to be stored. The methane capture system appears to have been shoe-horned into the application as part of the belated attempt to justify the pivot to being a "net zero" mine.
40. The second key element of the Applicant's case on operational emission is the assessment undertaken by Ecolyse Ms Leatherdale accepted that it does not take into account any emissions from possible leakage or failure in Mr Tonks' system. Ms Leatherdale confirmed that Ecolyse updated its assessment to include embedded emissions from the operational phase as a result of Professor Grubb's proof of evidence and in her additional note, Ms Leatherdale takes a roundabout route to assert that the embedded emissions from the Regenerative Thermal Oxidisers as part of the methane capture system were accounted for by Ecolyse because, even though there were not part of the scheme assessed by Aecom, there was sufficient slack in their assessment for the RTOs effectively to have been accounted for.

41. The Ecolyse Report also omits any possibility of fugitive methane emissions after abandonment and fails to calculate or take into account the level of CO₂ absorption from the trees, soils and any other natural absorption currently on the land, which will be lost if the land is developed for the mine.
42. Accordingly, there are numerous questions about the robustness of the Ecolyse assessment.

Finch and end use emissions

43. The Applicant and the Rule 6 Parties disagree on the correct approach to end use emissions and on the judgment in *R(Finch) v Surrey CC* [2020] EWHC 3566. SLACC agrees with and endorses FoE's position as set out in its Statement of Case.²³ SLACC makes the following short points.
44. First, the judgment in *Finch* is subject to appeal, which is to be heard by the Court of Appeal in November 2021. In the event that the Court's further judgment impacts the consideration of the present application, SLACC reserves the right to submit further written legal submissions on the relevant issues.
45. Second, the judgment in *Finch* is not authority for the proposition that end use emissions cannot be material planning considerations. Rather, *Finch* concerned the narrow technical question about what must (and may not) be assessed in the course of a lawful Environmental Impact Assessment ([1]).²⁴ Holgate J found that assessment of GHG emissions resulting from end-use of the product extracted by a development ([126])²⁵ was not necessary in that exercise. The exclusion of end-use emissions considerations from that particular aspect of the planning process does not exclude end-use emissions from being material planning considerations and the *Finch* judgment does not approach that controversial conclusion.²⁶

²³ CD7.1

²⁴ CD7.1,[1], p.1

²⁵ CD7.1, [126], p. 21

²⁶ Note that *Finch* only mentions the term 'material consideration' on one occasion, where Holgate J notes it is "plainly irrational for the local authority to have based their decision on an EIA which had obviously failed to address an 'obviously material consideration'" ([120]).

46. Third, the *Finch* case concerned a wholly different type of emission and can therefore be distinguished on the facts. *Finch* considered the production of hydrocarbons from oil wells in the Horse Hill Well Site in Surrey and noted that the end-use of that product could occur in a number of different industrial and domestic settings.²⁷ This case concerns development producing a single product, coking coal, which has in practice, a single application: use in the production of steel. The GHG emissions of the use of coal in this context are therefore plainly an effect of the development itself, unlike in *Finch*.
47. Further, the inquiry heard clear evidence from both Professor Grubb and Dr. Barrett that the end use emissions of the proposed development are easily capable of quantification due to their necessarily determined end use. Indeed, both experts came to nearly identical conclusions using the BEIS emissions factor for coal, which is a standardised method for estimating such emissions.
48. It is therefore not SLACC's case that the EIA is deficient for failing to assess the relevant end use emissions as the Inspector has now been provided with that information and should take it into account. Instead, SLACC's case is that WCM's approach in failing to calculate the end-use emissions of the development at all (relying on an erroneously broad application of *Finch*) has obstructed the proper determination of this application because such emissions are plainly material considerations.
49. That conclusion is obvious even on the Applicant's own case. Mr. Thistlethwaite "recognise[s] that these downstream emissions may nevertheless be *capable* of being a material consideration in the determination of the planning application."²⁸ The Applicant's Revised Environmental Statement (Chapter 19) similarly confirms that the use of coal is capable of being a material planning consideration.²⁹

²⁷ CD7.1, [3]-[7], p. 2

²⁸ WCM/ST/1, §5.140 and see also §5.142.

²⁹ Regulation 22 response, Revised ES Ch 19, §16, p. 6

50. Fourth, and finally, the factual circumstances of the present application plainly commend consideration of the end-use of the coal product as a material consideration. The sole purpose of this application is to extract a fossil fuel whose only use is in a process which emits both Methane and CO₂, and the effects of doing so can be accurately estimated, and indeed have been (albeit not by the applicant). Those emissions must be relevant to the instant decision given the Secretary of State's call-in letter specifically referred to the increased climate targets within the recommendations of the 6th Carbon Budget³⁰ and confirmed he wished to be informed, in particular of the extent to which the proposed development is consistent with Government policies for meeting the challenge of Climate Change.³¹
51. Further, end-use GHG emissions have been considered material by the Secretary of State in a development proposing the extraction of coal. In the recent Highthorn Appeal, the Secretary of State had regard to the "extraction, processing and combustion"³² of the coal produced by that development following the Inspector's explicit consideration of the GHG emissions impact of burning the Highthorn coal.³³
52. Further still, the applicant has invited the Inspector to consider the continued need for coking coal on the basis that burning it is necessary for the production of green infrastructure such as public transport and wind turbines. For these to come forward depends on (at least a) a two-stage process first requiring the production of steel via BF-BOF and then the machining, processing and assembly of steel into the relevant product. It is nonsensical for the appellant to rely on such benefits as material to the present decision, whilst also maintaining that emissions from the single stage process of simply burning the WCM coal in a BF-BOF cannot be considered. The applicant appears to be inviting the Secretary of State to give weight to benefits which are two production steps away but to ignore harm which

³⁰ SoS letter CD6.1, §6

³¹ SoS letter CD 6.1, §11

³² CD6.1, §62, p. 12

³³ CD6.2, see §C112-C115 and in particular, §C113, p.143-4 (hard copy pp.199-200).

is one step away, and which is inherent in the production of the benefits on which it relies.

The 'perfect substitution' error

53. The Applicant addresses the emissions from use of the coal by asserting that the coal produced will “displace”³⁴ and/or “replace”³⁵ and/or “substitute”³⁶ for coal currently being supplied by existing mines, predominantly located within the USA.
54. Professor Grubb addresses shipping emissions (both on the basis of the Aecom report and the Ecoyse Report) and his evidence demonstrates that, for the Applicant’s argument to work, there has to be not just “substitution” but “perfect substitution”: if even 1% of the of the coal from the mine is net additional, this would result in more than a doubling of the existing Ecoyse estimate for “likely mitigated” emissions from the mine for every year that the mine is operating at full capacity.³⁷ So if “only” 90% substitution took place, the actual emissions from the mine would be more than 11 times the Ecoyse estimates for every year the mine operates at full capacity.³⁸
55. Ms Leatherdale confirmed that Professor Grubb’s figures were not disputed.
56. Mr Thistlethwaite suggested that the planning case did not rest on perfect substitution, but rather on the economics of coal closer to a steelworks having a competitive advantage and so displacing coal from further afield. Professor Ekins addressed that argument with the clarity, detail and incisiveness one would expect from an someone who has worked in environmental economics since 1985, including Co-Directing the UK’s Energy Research Agency and leading a report by the EC on European Decarbonisation Pathways; and whose doctorate was in economics. The suggestion that opening a new line of coal supply in the UK would cause US producers to reduce their production on the basis they would no longer

³⁴ WCM/JT/1 § 3.5.

³⁵ Revised ES Chpt 19 (August 2021) §14.

³⁶ WCM/ST/1 §5.143.

³⁷ SLACC/MG/3 §2.19.

³⁸ SLACC/MG/3 §2.20.

be supplying the UK/EU simply runs contrary to fundamental laws of supply and demand: an increase in supply will tend to depress the price of a good, in turn causing demand for that good to increase. He explained in his oral evidence how that law of supply and demand still operated, despite the market being one where prices are benchmarked and despite the market having derived demand.

57. Applying this central principle of economic analysis, were the WCM mine to open in order to supply coal to the UK/EU market, US suppliers presently supplying the UK/EU would not simply cease entirely to extract and market coal but would sell it elsewhere. That would lead to a greater amount of total emissions both in terms of transport and the use of the additional coal.
58. Several features of the coking coal market were claimed to circumvent economic orthodoxy on the basis that the supply-demand dynamic is “extremely more complicated” for coking coal.³⁹ Professor Ekins explained in oral evidence, however that the market “may be complex but that doesn’t mean [it] run[s] against the fundamental laws of supply and demand.”
59. As already stated, the benchmarking of the global metallurgical coal price against the price of low-volatile coal from Australia was not a feature which Professor Ekins considered to be capable of ousting such laws. Professor Ekins equally recognised that the market was volatile with factors such as the Chinese ban on Australian coal or large cyclones causing significant price swings, but explained that this was precisely where proper economic analysis facilitated a full understanding of the market over time. He concluded that such analysis of the history of the coal market revealed “precisely the expansion that one would have expected” in keeping with his analysis.⁴⁰
60. Professor Ekins undermined Mr. Kirkbride’s argument that the inelastic demand for coking coal justified its departure from normal economic principles: For Mr. Kirkbride’s argument to be correct (that WCM’s increase in production and the ensuing fall in price would lead to zero increase in demand) the price elasticity of

³⁹ WCM/JT/3, §3.7.

⁴⁰ See also the explanation provided by Professor Ekins at SLACC/PE/4, §§3.5-3.6

coking coal would have to be zero.⁴¹ However, that is not the position in practice: Professor Ekins presented peer-reviewed research showing the price elasticity of coking coal in fact appears to be in the range of -0.3 to -0.5⁴² meaning that if WCM coal enters the market, it would be expected to increase demand.

61. Mr. Truman relied on an assessment of the United States as a “swing supplier” to the seaborne market to attempt to rebut the suggestion the US coal displaced by the WCM mine coming onstream would sell their coal elsewhere.⁴³ That theory was supported by a diagram⁴⁴ that Professor Ekins showed “doesn’t seem to illustrate ‘perfect substitution’ at all.” It plotted Australian against US met coal exports, but on “very different scales” such that an increase in Australian met coal exports of roughly 60Mt between 2011 (130Mt) and 2016 (190Mt) was accompanied by a decline in US met exports of roughly 30Mt (from 65Mt in 2011 to 35Mt in 2016) for the same period. As such, even if it were the case that US exports were responding directly to Australian exports there would only be, at maximum, a 50% substitution. The diagram plainly did not support the view that the entrance of the proposed WCM coal into the market would lead to a perfectly-equivalent contraction from US coal suppliers.
62. In any event, the production of the proposed mine (2.78Mt p/a) would at most meet 5-6% of the level of European need predicted within the WM Base Case of 55Mt p/a.⁴⁵ Accordingly Mr. Truman agreed that to the extent that steel production in Europe does use BF-BOF in the coming years, those steelworks will remain heavily reliant on imports from US and Australia, and this will not change. Even at the height of WCM’s case therefore, its claim to be opening a supply line that will provide meaningful substitution for US and Australian supply is illusory.
63. As explained in detail by Professor Ekins opening a domestic coal mine will simply add another source of coal to world, leaving the current US suppliers to sell their product elsewhere (there is an ample Chinese market, as Mr. Nicholas explained)

⁴¹ See SLACC/PE/4, §3.3

⁴² SLACC/PE/4/R1

⁴³ See WCM/JT/3, §2.10-2.12.

⁴⁴ WCM/JT/3, §2.12-§2.13

⁴⁵ JT/2, §1.35, §1.71, Table 2.2 (p.22)

at increased transport emissions cost and to regions with less stringent environmental regulation. It follows that there will be no GHG emissions saving to which the UK can point as a result of this development opening, there will simply be more coal, and more GHG emissions.

International impact

64. Article 4(4) of the Paris Agreement places a particular obligation on developed country Parties like the UK to “continue taking the lead by undertaking economy-wide absolute emission reduction targets”.⁴⁶
65. To that end, the G7 countries reaffirmed in June 2021 their commitment to the Paris Agreement and called on “all countries, in particular major emitting economies, to join us in these goals as part of a global effort, stepping up their commitments to reflect the highest possible ambition and transparency on implementation under the Paris Agreement”.⁴⁷
66. The commitment of the UK as a global leader in the international efforts to meet the temperature goals set out in the Paris Agreement is clear. “Taking the lead” means that the decisions taken by the UK relating to climate change will meaningfully influence those taken by other countries. The existence of such influence forms the basis for international climate diplomacy efforts.
67. Mr Thistlethwaite accepted in cross-examination that the fact that G7 countries, including the UK, have committed themselves to taking a credible lead in meeting the temperature targets set by the Paris Agreement is a material consideration. He further accepted that one of the reasons the Secretary of State called in this application was due to “substantial cross-boundary or national controversy”⁴⁸ and that there is “an international controversy element”.

⁴⁶ CD8.1, Paris Agreement, p. 6

⁴⁷ SLACC/BW/2 Sir Robert Watson Appendix, Carbis Bay G7 Summit Communiqué, p. 326 – 327, paragraph 38

⁴⁸ SLACC/PB/3 Paul Bedwell Rebuttal Proof of Evidence, Appendix 1, p. 25, paragraph 6

68. The Applicant has repeatedly characterised the demonstrable, evidenced international impacts of granting planning permission as a matter of “virtue signalling” and mere “perception”. When invited to offer a definition of “virtue signalling”, Sir Robert noted in his oral evidence that it was “normally a derogatory phrase” which suggested “someone who just wants to look good, not for the real reason”. It was further put by the Applicant in the cross-examination of Professor Ekins that “the days when Britain told the rest of the world what to do are long gone”.
69. The use of such language by the Applicant betrays a failure to understand that international climate diplomacy, and the position of the UK in global efforts to limit climate change, are both matters of fact upon which evidence has been provided to this Inquiry. Attempting to dismiss the entire field of international relations as concerned with mere “perception” as opposed to one grounded in factual determinations – predicting how the decisions taken by one country are likely to influence the decisions taken by another – is misconceived.
70. Sir Robert’s has experience of this at the highest levels. He was chief scientific advisor in the White House; chief scientific advisor at the World Bank and a senior scientific advisor in DEFRA. In terms of people who “do”, one couldn’t wish for better. That may have been why so few questions were asked of him. And he could not have been better placed to answer the following factual question: what are the likely consequences, internationally, of a decision to grant planning permission, given the UK’s status as a global leader on climate change?
71. Sir Robert concisely explains the implications for international climate diplomacy in his proof:⁴⁹
- “In my judgment, were the UK to permit a large coal mine such as the proposed Woodhouse Coillery, this would have a negative effect on the UK’s climate diplomacy image and efforts. A signal would be sent that the UK is not serious about its climate ambition or its promises of world leadership on this issue. This would have material consequences in the

⁴⁹ SLACC/BW/1 Sir Robert Watson Proof of Evidence, p. 22, paragraphs 5.3.4 and 5.2.5

form of reduced ambition from other countries, and therefore increased GHG emissions. Remarks by the US climate envoy John Kerry, that the UK should no longer be using coal, are an indication of this (Appendix 9).

Further, if the mine was permitted on the basis that it was “carbon neutral” or even “carbon negative” - i.e. if the rationale for permitting the mine was supposedly that to do so would not increase (or would decrease) global greenhouse gas emissions, many other countries would be likely to follow suit in arguing that they too needed to allow new fossil fuel extraction projects within their borders for similar reasons. This decision could thus have serious knock on effects, leading many countries to justify new coal mines, or oil extraction projects, etc, on the basis that this was actually good for the global climate.”

72. No evidence from any expert with experience in the field of international climate change diplomacy has been provided for the optimistic suggestion, made by two of the Applicant’s witnesses, that the project’s self-description as a “net-zero mine” would somehow counter the profoundly negative global influence Sir Robert describes.
73. The far-reaching international impacts of the decision to grant planning permission on the likelihood of the world meeting the temperature targets in the Paris Agreement is plainly a material consideration to be weighed against the grant of planning permission.

Climate Impact of a “True” Net Zero Mine

74. Mr Thistlethwaite accepted that, if the Inspector or the Secretary of State come to the view that the Applicant’s claimed offsetting scheme would not operate to offset emissions as completely or for as long as claimed, then the mine would not be a net zero mine.
75. Sir Robert addressed the position if the mine were “truly net zero” and whether that would take the UK close to or further away from achieving its climate goals. His evidence was that, if it was “truly” net zero, with all emissions either captured

or compensated by credible offsetting, then it would simply be neutral in terms of the UK's climate goals. However, it would still give other countries in the world an excuse to open additional mines which would be claimed to be net zero, and so it would overall have a negative effect on climate change. And he emphasised that the CCC's advice in its Sixth Carbon Budget Report is that the UK should try to meet its climate obligations by decreasing actual emissions and not offsetting:

“Net Zero is a different challenge from the previous 2050 target for at least an 80% reduction in emissions – all UK emissions must be tackled, without reliance on offsets from elsewhere. It is not sufficient to simply reduce emissions – where zero-carbon options exist these must be deployed (for example, in homes and in manufacturing)”⁵⁰

76. Two points arise. First, contrary to WCM's contentions, a net zero mine would not be positive for climate change; it would at best be neutral and at worst be negative if it caused other new net zero mines to open, given the extent to which they would be relying on offsetting. Offsets are a finite resource. And offsetting would not prevent the release into the atmosphere of the GHG sought to be offset – that would be emitted and have an immediate negative effect. Mr Leatherdale failed to appreciate either point when she asserted that a net zero mine would set a positive example.
77. This leads to the second point: on Sir Robert's analysis, the WCM mine would not be truly net zero, because not all the emissions will be captured. Even on WCM's case at its highest, the mine will cause 25 years of methane emissions to the atmosphere, initially entirely unmitigated and then residual emissions as the methane capture system cannot capture 100% of the methane. As set out above, taking WCM's case more realistically, there will be much more significant emissions than assumed by Ecolyse.

⁵⁰ This is made clear in the 6th Carbon Budget report CD 8.10 pg 1033 and in the Fuel Supply sector specific report SLACC/MG/2 pgs 72-73.

THE FUTURE NEED FOR COKING COAL AND NPPF CHAPTER 17

78. The need for the coking coal that WCM propose to extract from the mine is a principal consideration in the context of this application. The Applicant has persistently referred to the coal as a ‘critical raw material’⁵¹ the extraction of which is essential for the operation of the UK steel industry, and the provision of this resource was taken to be a material consideration in previous decisions concerning this application.⁵² The extent to which coking coal remains a central material in UK/EU industry is therefore key to determining the benefit (if any) obtained by extracting the WCM coal.
79. The Applicant also relies on the fact that coal, including deep-mined coal, is defined in the NPPF as a mineral resource of local and national importance. This is addressed further below, but two things should be highlighted at this stage:
- a. The Applicant accepts that there is no suggestion that there would be any shortage of coking coal for UK steel mills if the development did not go ahead; only that there would continue not to be a source mined in the UK; and
 - b. The NPPF has, since its amendment in 2019, treated coal differently, by presuming in paragraph 217 of the NPPF that planning permission should not be granted for its extraction unless that presumption can be outweighed because compliance with the two-part test.
80. The question of the need for the coal is a central plank of the Applicant’s case that, in the second part of the paragraph 217 test, the proposal provides a national, local or community benefit which outweighs the adverse climate and other environmental impacts.⁵³ It is also central to the question of whether there are wholly exceptional reasons⁵⁴ to justify the loss of irreplaceable ancient woodland at Roskapark and Bellhouse Gill Wood arising from the construction of the conveyor.

⁵¹ WCM/ST/1, §5.6, WCM/MAK/2, §1.14, §4.5, §10.2, WCM/MAK/3, §3.11, CD15.1, §10,

⁵² CD4.5, §8.2

⁵³ WCM/ST/1, §5.121, §5.154, §5.191-5.194

⁵⁴ WCM/ST/1, §5.127

81. SLACC's position is that there is no need for this new coal mine to produce coking coal. As already set out, the IEA's report, commissioned at the request of the UK Government, firmly shows that the remaining need for coking coal can be supplied by mines already in operation. All the evidence before the inquiry which takes into account the UK and EU's climate targets shows a rapidly diminishing need for coking coal. And this is against the background of how technology in steel production is changing rapidly, showing a clear move away from primary steel production using coking coal.
82. To the extent that there remains a need for coking coal, the second aspect of SLACC's case is that, unless the coal produced is subject to a condition setting a 1.25% sulphur limit, it will not be of sufficient quality to be sold as HVA coking coal in the UK and the EU. If a higher sulphur limit is used in the definition in the conditions, then the coal would probably be sold to Turkey or in Asia, removing any benefit claimed of sale of the coal in the UK and Europe. If no limit is imposed on the coal specification, or if the 2% sulphur content from the May 2020 ES is used, then the coal might be HVA or HVB coal, sitting well outside the Applicant's own case on the need for the coal.

UK and EU policy commitments to GHG reductions

83. Numerous developments in the UK and the EU illustrate that industrial decarbonisation is high on the political agenda, strengthened by legally bindings GHG reduction targets now in place. All of these developments have arisen since the Council resolved to grant planning permission for the mine – meaning that very little weight can now be placed on that resolution or the conclusions on the planning balance which underpinned it.
84. Starting with the EU, the EU Green Deal includes a suite of policies to reduce net GHG emissions by at least 55% by 2030 compared to 1990 levels⁵⁵ reflecting the EU Climate Target Plan⁵⁶ and in accordance with the goal to achieve climate neutrality by 2050.⁵⁷ The EU Industrial Strategy confirms the Green Deal as

⁵⁵ CD8.18, p. 2019

⁵⁶ CD8.29, p.24, CD8.30, p.1

⁵⁷ CD8.17, p.1

“Europe’s new growth strategy” and states “all industrial value chains, including energy-intensive sectors [...] will all have to work on reducing their own carbon footprints [...] those who move first and move fastest will hold the greater competitive advantage.”⁵⁸

85. The EU Circular Economy Action Plan refers to the need to “accelerate the transition towards a regenerative growth model that gives back to the planet more than it takes” to achieve climate neutrality by 2050.⁵⁹
86. In May 2021, the EU Industrial Strategy was updated alongside a working document on steel use which states “the European steel industry is expected to [...] deliver substantial emission reductions in order to stay competitive and contribute to climate neutrality by 2050,”⁶⁰ and includes a section on “Going Green”⁶¹ which refers to the need for “radical changes to the way steel is produced” (including the use of EAF and H-DRI technologies) if climate neutrality by 2050 is to be reached.
87. The position is very much the same in the UK. In fact, the legal and policy landscape in the UK has changed dramatically in the five years since WCM’s original application in 2017, not least of which are:
 - a. the significant step up by the Climate Change Act 2008 from the requirement to reduce emissions by 80% by 2050 to the net zero obligation;
 - b. the setting of the 6th Carbon Budget and the adoption of the UK’s Nationally Determined Contribution under the Paris Agreement;
 - c. the change in the NPPF, introducing a presumption against the grant of planning permission for coal extraction unless the two-part test is met.

⁵⁸ CD9.19, p. 1045

⁵⁹ SLACC/LN/2 – Appendix 2, p.7 (internal p.2)

⁶⁰ CD8.15, p. 1754

⁶¹ CD8.15, pp. 1759-1760

88. The UK Government has made clear that it is committed to limiting temperature rise to 1.5 degrees.⁶² Through s.1 of the Climate Change Act 2008 it has legislated for “at least” a 100% carbon reduction as against the 1990 baseline by 2050⁶³ and recently set the Sixth Carbon Budget, which enshrines in law the ambitious target of reducing emissions by 78% as against that baseline by 2035 in the Carbon Budget Order 2021. The Climate Change Committee’s ‘Balanced Net Zero Pathway’ includes greenhouse gas reductions of 77% from 2020 levels by 2035 and 93% by 2040 from the Iron and Steel industry,⁶⁴ and a policy recommendation for the Government to set targets for steelmaking in the UK to reach net-zero emissions by 2035.⁶⁵ The Industrial Decarbonisation Strategy similarly confirms that “in our modelled pathways, the iron and steel sector is largely decarbonised by 2035.”⁶⁶
89. It is striking that an application which was fairly anachronistic even in 2017 has, with the change in industrial and climate policy and obligations over the past five years, become almost antediluvian. That is no doubt what has prompted the reinvention of the application, from August this year, as comprising a “net zero mine”; a descriptor that first emerged in the Applicant’s evidence submitted in August 2021; not ever applied to the development in the application documents or even in the Applicant’s Statement of Case in May 2021.

The decline of BF-BOF steelmaking: modelling the impact of policy commitments on the steel industry

90. As became clear in the course of the inquiry, the next decade will see a rapid decline in BF-BOF technology, and its eradication as early as the mid-2030s if the 1.5°C warming target is to be realistically pursued.

⁶² Both as part of the G7 in the official G7 Communique after the meeting in the UK on 11-13 June (SLACC/BW/2 Appendix 10 eg p. 314. And again very recently in the Prime Minister’s address to the General Assembly ID43 p. 1292.

⁶³ CD8.2, hard copy p. 29

⁶⁴ CD8.11, Figure A3.3.f, p.32 (hard copy p. 1475)

⁶⁵ CD8.11, Table P4.1, (hard copy p.1480)

⁶⁶ CD8.14, Action 4.3 (hard copy p.1632)

91. Mr. Truman's Proof of Evidence confirms that between the present day and 2049 "carbon emission reduction targets, set publicly by a growing number of countries, will mean that the steel industry will be required to decarbonise."⁶⁷ He also agreed that there would be a need for rapid action, confirming Governments would have to make "year on year reductions" in emissions to meet their emissions targets.
92. Nevertheless, Mr. Truman conceded that the Wood Mackenzie Base Case Scenario "does not specifically include country by country commitments" to reach targeted temperature restrictions and emissions goals and that doing so was "outside the concept of our modelling". This is despite the fact that Wood Mackenzie's own description of the assumptions that should feed into its "Steel Supply Modelling" – ie its base case forecast – is "environmental legislation".⁶⁸ So legislation such as the Climate Change Act 2008 should have been taken into account, but was not.
93. In light of these omissions, the WM Base Case includes BF-BOF steelmaking at a similar level to the present day up until 2035, resulting in a failure to meet the 2°C global temperature increase target as against 1990 levels in keeping with the Paris Agreement, and achieving emissions reductions of only half that required by the Sixth Carbon Budget.⁶⁹
94. Professor Ekins explained the result of this "strange" approach was that "the assumption in the WM Base Case is that neither the EU or UK meet the targets they have put into law and which they say they are determined to meet." Indeed, Mr. Truman agreed that the WM Base Case would leave the UK "a long way adrift" of its international obligations to address climate change. Plainly such a forecast - and the level use of BF-BOF within it - is of no use for present purposes. Adopting the course within the WM Base Case would lead to a level of global warming which as a matter of scientific consensus would comprise a catastrophic existential threat and would cause the UK to miss its legally-binding targets.

⁶⁷ WCM/JT/1, §4.4

⁶⁸ WCM/JT/2 §1.8 pg 6.

⁶⁹ See SLACC/LN/3, §2.2 and WCM/JT/2, §1.62

95. It is striking that this is the foundation of the Applicant's need case. The Wood Mackenzie base case forecast, which underpins all of Mr Truman's assessment in his main proof of evidence, and hence all of Mr Thistlethwaite's planning evidence in his main proof, methodologically predetermines a primary question the Secretary of State is considering via this inquiry: namely whether the development is consistent with Government policies for meeting climate change.⁷⁰ The Wood Mackenzie base case assumes the answer is "no", because it assumes the UK's binding obligations in the carbon budgets will not be met. On the Applicant's own need case, supply of WCM coal will contribute to the UK inevitably failing to meet its climate obligations.
96. The Applicant sought to justify that assumption by repeatedly differentiating between a "forecast of what will happen", which is how the base case was described, and "scenarios", which is how the Applicant characterised all other assessments. What that misses is that forecasts and scenarios are both based on assumptions. A "forecast of what will happen" is based on a set of assumptions about future behaviour and so is only as robust as its underlying assumptions. The Wood Mackenzie forecast assumes that behaviour will not change in light of the UK and EU's climate targets and it assumes that behaviour will not be changed by government policies or regulations or by market forces aligned with the climate obligations. That is not a robust assumption.
97. In the context of this inquiry it is a very damaging assumption for the Applicant. It bakes climate failure into their case. The Applicant's contention is that the development will not materially impact the UK's climate obligations, but their need case assumes the steel industry will not meet those obligations, by a long way. So the Applicant assumes that other sectors will pick up the slack. Additional emissions created by the steel industry being compensated for by greater reductions in another industry (for example, within aviation).

⁷⁰ SLACC/PB/3 – Appendix 1. §6, and §11: "On the information so far available to the Secretary of State, the matters which he particularly wishes to be informed about for the purposes of his consideration of the application are: (a) the extent to which the proposed development is consistent with Government policies for meeting the challenge of climate change, flooding and coastal change in the NPPF"

98. That is contrary to the Sixth Carbon Budget, which requires every sector to reduce emissions rapidly. There is, as Sir Robert memorably put it, no “wobble room” in the Sixth Carbon Budget or in the net zero obligation; there is no special pleading for one industry.
99. All the pathways in the Sixth Carbon Budget require all sectors of the economy to contribute to emissions reductions to achieve Net Zero by 2050, and the Balanced Net Zero Pathway, which is the basis for the legislated carbon budget, particularly requires this.⁷¹ The CCC’s Methodology Report makes clear that “A key part of the Committee’s approach has been the construction of a set of self-consistent pathways, or scenarios, for emissions in each sector of the UK’s emissions from now through to 2050.” The CCC has considered what emissions reductions will be realistic from each industry,⁷² and that was key to informing the level at which the Sixth Carbon Budget was set. Indeed, Professor Ekins noted that whilst there were challenges to decarbonising the steel industry, the CCC recognised considerably greater abatement potential for that industry as against other sectors particularly from the mid-2030 onwards within their ‘Balanced Net Zero Pathway.’⁷³
100. If the Applicant wishes to sustain the argument that the steel industry should be afforded additional ‘slack’ in relation to emission reductions then the onus is on it to explain why that is the case. The Applicant did not do so before the Inspector, and plainly the consequence of that approach would be to place additional pressure on other industries.
101. Moreover, the ‘slack’ the Applicant argues should be afforded to the steel industry is enormous. Mr Truman acknowledged that the WM Base Case would only involve the UK steel industry achieving roughly half of the emissions reductions that the CCC expects in a balanced pathway. No evidence was put before the inquiry that the UK could achieve its legislated targets under any pathway in which the steel industry is such a ‘laggard’.

⁷¹ CD8.10, p.95 (hard copy p. 1090).

⁷² See, in relation to the steel industry, CD8.10, pp.125-133 (hard copy pp. 1120-1128).

⁷³ CD8.11, Fig. A3.3.d, (bottom line diagram), p. 30 (hard copy p1473)

102. The Accelerated Energy Transition 2.0 ('AET2') scenario alternatively provided by WM within its original Report followed a two-degree warming pathway.⁷⁴ Mr. Truman acknowledged, however, that the commitment under the Paris Agreement is to limit global warming to "well below 2°C,"⁷⁵ and Prof Ekin's rebuttal shows by reference to the White Paper released by Wood Mackenzie in February 2021 that the AET2.0 scenario does not involve the UK or the EU meeting its legally-binding GHG emissions targets.⁷⁶
103. In any event, both the UK and EU are now committed to limiting warming to 1.5°C meaning AET2.0 scenario is contrary to confirmed emissions reductions targets in both jurisdictions.
104. The Accelerated Energy Transition 1.5 scenario ('AET1.5') set out in the Addendum Wood Mackenzie Report⁷⁷ it is plainly the most relevant modelling exercise provided by WCM, as it is the only one of the three models provided by WCM that involves the UK and EU meeting their legislated targets and illustrates a path to "hold the global temperature rise to less than 1.5°C"⁷⁸ in keeping with the UK's present climate goals.
105. It is therefore telling that the AET1.5 scenario necessitates carbon emissions from the steel sector falling by a "staggering" 93% from the WM Base Case, and 75% under the AET2.0 Scenario,⁷⁹ and results in global metallurgical coal trade "declin[ing] sharply"⁸⁰ involving BF-BOF production being "abolished" in the EU in the early 2040s.⁸¹ This was fairly characterised as "a massive decline" and a "great reduction" by Mr. Truman in his evidence, who also accepted that the period leading up to 2040 would "see blast furnace closures throughout that period."

⁷⁴ JT/2, §1.72

⁷⁵ CD8.1, Article 2(1)(a), p.3, hard copy p.5.

⁷⁶ SLACC/PE/3 §2.5 and the appended Wood Mackenzie White paper (SLACC/PE/3 pg 30). AET2.0 is consistent with "limiting global warming to no more than 2°C by the end of the 21st century" and only gets the EU to a 53% cut in emissions by 2030 (the required 55% cut is only reached two years later).

⁷⁷ ID1

⁷⁸ ID1, §1.3

⁷⁹ ID1, §1.9

⁸⁰ ID1, §1.14

⁸¹ ID1, Appendix, p. 3

106. There is indeed consensus between models which involve compliance with the UK and EU's legislated GHG targets: the use of BF-BOF in the UK and Europe will decline sharply in the 2030s and be eliminated in the early 2040s. Professor Ekins presented modelling undertaken by E3 Modelling Athens⁸² which included a 'Policy Scenario' which incorporates current emissions reductions targets and "focussed on a scenario which assumed that the UK and EU would take its own laws seriously." Ms Leatherdale for WCM acknowledged that the "direction of travel" in terms of climate policies "is very clear" and is in the direction of reduced emissions.⁸³ Thus a scenario which includes only current targets is, on the Applicant's own evidence, conservative, in that further policies are in fact likely.
107. Professor Ekins gave clear evidence with reference to the graphs from his Proof of Evidence,⁸⁴ explaining that in the PRIMES Policy Scenario (and in AET1.5), demand for coking coal in the UK and EU27 fell to "tiny amounts, effectively 0, by 2040, well within the proposed lifetime of the mine" due to the likely widespread commercial availability of H-DRI and EAF production. He highlighted that this also informed the CCC's projection for a similarly sharp decline in emissions leading up to 2035 in the Balanced Net Zero Pathway for Manufacturing and Construction,⁸⁵ commenting that "on the basis of a different modelling exercise, we have got a very similar sign" leading to "an extra sign of robustness" in the PRIMES Policy Scenario.
108. The Applicant deployed the repeated scenario-forecast dichotomy in relation to the PRIMES Policy Scenario. As already set out, both scenarios and forecasts involve assumptions. But whereas the PRIMES Model is a transparent, published model which can be scrutinised and which is routinely used by the European Commission to project energy system developments,⁸⁶ the WM forecast and scenarios are all based on a proprietary model which therefore cannot be scrutinised.

⁸² SLACC/PE/2 – Appendix 3

⁸³ In cross-examination by FoE.

⁸⁴ SLACC/PE/1, §7.4, figs. 6 and 7.

⁸⁵ CD8.11, Fig. A3.3.d, (bottom line diagram), p. 30 (hard copy p. 1473)

⁸⁶ SLACC/PE/1 §2.3

109. The fact is that given the concessions made by Mr. Truman above, neither the WM Base Case forecast nor the AET2.0 scenario can possibly be used to justify the proposed 'net zero' mine: both courses would require the Inspector to assume that the UK/EU will fail in pursuit of their stated and legislated for emissions reductions targets. In contrast, modelling exercises which do consider legislative restrictions on emissions and Government behaviour in light of the same (e.g. the PRIMES 'Policy Scenario', AET1.5 and the CCC's Balanced Net Zero Pathway) all indicate the rapid decline of BF-BOF steel production.
110. It follows that (even operating on the assumption that the steel industry continues to operate at a similar size to the present day) coking coal use in the UK and EU will decline from 2025 and essentially disappear from 2040.
111. This is incompatible with the suggestion that the coal from the WCM mine will fulfil a domestic and European need⁸⁷ for the coal during the lifetime of the mine because the need for coal will cease entirely a decade before the mine is set to close. It is also at odds with the suggestion that there will be a need for the coal between 2025 and 2040. Mr Truman acknowledged that were coal use to cease in the early 2040s, as in the AET1.5 scenario, there would be a gradual phasing out of coking coal in the preceding period (as shown by the shrinking European metallurgical coal demand, which then essentially disappears in the early 2040s in Figure 1.2 of WM's Addendum on the AET1.5 Scenario)⁸⁸ This means that existing suppliers will be able to satisfy market demand. Indeed, as the International Energy Agency put in their Net Zero pathway: "beyond projects already committed as of 2021 [...] no new coal mines or mine extensions are required" if the Net Zero target is to be met.⁸⁹

Green steelmaking technology to reach 1.5°C as modelled

112. The applicant has sought to reconcile the need for striking emissions reductions in the next decade, and the almost total eradication of BF-BOF emissions by the

⁸⁷ WCM Statement of Case para 114.

⁸⁸ ID1 page 4, Figure 1.2 (see the green wedge representing European demand, below the gold colour).

⁸⁹ CD8.16, (hard copy p. 1801.)

early 2040s in the above modelling scenarios by suggesting that the technology to move away from BF-BOF production is not yet commercially viable. They say the most effective way to achieve required emissions reductions up to 2050 is to persist with BF-BOF but to use Carbon Capture and Storage to mitigate emissions. That approach is unduly pessimistic about the commercial application of H-DRI and EAF technologies, hopelessly optimistic about what CCS can achieve, and contrary to the evidence about what will be required for the UK/EU to actually achieve the emissions targets they pursue.

113. Secondary steelmaking, or production of steel from recycled scrap, reduces the need for new steel to be produced from iron ore (referred to as “primary” steelmaking). Professor Nilsson presented evidence that “wide consensus exists among experts . . . that the share of secondary steelmaking ... will increase in the EU up to 2050.” Indeed, in Wood Mackenzie’s AET1.5 scenario, scrap use in steelmaking would “nearly double” by 2050.⁹⁰ This is one of the key drivers of the precipitous fall in demand for metallurgical coal in that scenario.⁹¹ Professor Nilsson presented peer-reviewed evidence showing that the minimum likely EAF share in Europe by 2050 is 66%.⁹² This significant growth in the use of scrap will mean that less new steel is needed, thus shrinking the demand for coking coal in Europe.
114. In relation to primary steelmaking (i.e. making “new” steel rather than recycling) it is not in dispute that Hydrogen-based production will be the steel industry’s lasting response to the problem of emissions reductions and eventually replace BF-OF. This method reduces GHG emissions by over 90% compared to the BF-BOF route⁹³ and Mr. Truman’s proof of evidence confirms “hydrogen-based steel offers the most attractive long-term solution that might eventually lead to widespread replacement of coal and coke in steelmaking.”⁹⁴

⁹⁰ ID 1 pg. 3, § 1.9 (first bullet).

⁹¹ ID 1 pg. 4, § 1.14.

⁹² SLACC/LN/3 § 4.4.

⁹³ SLACC/LN/2 – Appendix 8(c)

⁹⁴ WCM/JT/1, §4.6

115. Rather, it is the timeframe within which H-DRI will succeed BF-OF that is in issue. The 2 October 2020 OR shortened the lifetime of the permission on the basis that H-DRI would likely be commercially viable around 2050,⁹⁵ with commercially viable demonstration plants being operational by 2035.⁹⁶ In practice, however, the steelmaking industry has now begun its shift away from BF-BOF even more rapidly than had been predicted, and that there is every indication that this movement will continue at speed.⁹⁷
116. Professor Nilsson highlighted 19 current or forthcoming projects operated by major EU steelmakers that were not dependent on the use of metallurgical coal for steelmaking,⁹⁸ identifying that “it tells me that there has been a very rapid shift in the steel industry” towards Hydrogen-based steelmaking technology. Results from the Green Steel Tracker (**‘GST’**), a webpage supported by the UN designed to track low carbon investments in the steel industry provided a strong evidential basis for that assessment.
117. The GST revealed 47-48 new green steel projects, the majority of which were made after October⁹⁹ with Professor Nilsson confirming this showed “a lot of momentum in the steel industry towards Hydrogen steelmaking.”
118. Professor Nilsson was unequivocal about the driving force behind these developments, explaining that it arose from the intersection of internationally agreed climate targets and the rapid development of alternative steelmaking technologies. There is significant empirical support for that finding in the ambitious climate targets made by steelmaking market leaders set out in his evidence, such as Arcelor Mittal’s commitment to a 30% reduction in emissions by 2030 and carbon neutrality by 2050¹⁰⁰ and in the large number of European steel mills that have announced they will begin H-DR steel production in the coming years.¹⁰¹

⁹⁵ CD4.5, §7.67

⁹⁶ CD4.5, §7.63

⁹⁷ See, in overview, the comments of Professor Nilsson at SLACC/LN/1, §2.4-2.11

⁹⁸ SLACC/LN/1, §3.27, SLACC/LN/2, Appendix 12

⁹⁹ Some results from the GST may be found at SLACC/LN/2 – Appendix 11

¹⁰⁰ SLACC/LN/2 – Appendix 12, and see columns ‘2030 Target’ and ‘2050 target’ generally in Table 2.

¹⁰¹ SLACC/LN/1 3.27.

119. Professor Ekins was wholly supportive of Professor Nilsson’s assessment, and provides valuable further detail on the HYBRIT Partnership¹⁰² (including the announcement of a demonstration plant to be commissioned in 2025 with sales of 1.3 Mtpa (2026) rising to 2.7Mtpa (2030))¹⁰³ as well as identifying a recent announcement from Volvo¹⁰⁴ that it will be using low-Carbon steel in its cars throughout the 2020s.¹⁰⁵ Contrary to the Council’s conclusion that commercially viable demonstration plants would not exist until 2035, it appears one will be producing 1.3 million tonnes per year by 2026. Professor Haszeldine similarly endorsed Professor Nilsson’s conclusions regarding the likely industrial scale operation of H-DRI technology, pointing again to the HYBRIT partnership’s actual delivery of Hydrogen produced steel to the Volvo group for manufacturing in August 2021¹⁰⁶ and highlighting that it caused industry journalists to note: “Behold, Carbon-Free Steel Now Exists.”¹⁰⁷
120. The conclusions these leading experts reached on the present and future uptake of H-DRI are not academic armchair exercises. They track the commitments which are actually taking place in the steel industry and even Mr. Truman acknowledged Europe to be “leading the way” in Hydrogen-based steelmaking. To underscore the accuracy of their analysis it is worth dwelling on the comments of Martin Pei Executive Vice President and CTO of SSAB AB in answer to queries from the Council in 2020, in which Mr. Pei informed the Council that the HYBRIT initiative launched in 2016 led to a conclusion in 2017 that HYBRIT technology “is technically attractive and economically interesting,” resulting in a decision to make pilot scale investments in 2018.¹⁰⁸ Those pilot installations are presently being installed, Mr. Pei said, and an industrial scale demonstration plant is being constructed for 2025 alongside the conversion of two blast furnaces to be ready

¹⁰² SLACC/PE/1, §6.11 – Appendix 9

¹⁰³ SLACC/PE/1 – Appendix 10.

¹⁰⁴ And see also Volkswagen’s commitment to make its value chains carbon neutral by 2050 (Appendix 16, p.4)

¹⁰⁵ SLACC/PE/1 – Appendix 11.

¹⁰⁶ SLACC/SH/3 – R4, p.82

¹⁰⁷ SLACC/SH/3 – R5, p.85

¹⁰⁸ CD2.77, p. 270

for H-DRI production in 2025. SSAB's aim, he said is to convert the remaining BF-BOF sites to HYBRIT production between 2030 and 2040.

121. SSAB AB is emblematic of the steel industry's shift away from BF-BOF production as set out by Professor Nilsson and, summarising what has been learned from the HYBRIT scheme Martin Lindqvist, President and CEO of SSAB, commented "it represents proof that it's possible to make the transition and significantly reduce the global carbon footprint of the steel industry."¹⁰⁹ If there was ever any confusion over the direction of travel it may be dispelled by Mr. Pei's response: "we do not want to make further investments in coke oven/blast furnace system."¹¹⁰
122. Evidence from the steel market underscores the commercial viability of green steelmaking technology, and the pace of the adoption of that technology indicates that the next decade is likely to see even further advance, particularly in the use of H-DRI. Five years ago, Professor Nilsson explained, big steel makers like ArcelorMittal¹¹¹ or Tata Steel had described Hydrogen steelmaking as a fairy-tale but, he said, "the conditions have changed." Indeed, in October ArcelorMittal announced its adoption of Green Hydrogen technology that will "deliver substantial CO2 emissions savings even within the next five years"¹¹²; during the course of the inquiry itself Tata Steel announced that it was adopting H-DRI technology at its large steelworks in the Netherlands¹¹³ and the HYBRIT venture had been proved "very reliable and delivered according to schedule" according to Professor Nilsson.
123. Some individual proposed pilot schemes were identified by Mr. Truman as being unlikely to come forward within the announced timeframes, but that plainly does not displace the weighty empirical evidence presented by Professor Nilsson showing "great interest from the market" in H-DRI and indeed its adoption within a short timeframe.

¹⁰⁹ SLACC/SH/3 – R5, p.86

¹¹⁰ CD2.77, p. 272

¹¹¹ SLACC/LN/3 – Appendix 2.

¹¹² SLACC/LN/3, Appendix R2.

¹¹³ ID30.

124. The contemporary commercial viability of H-DRI technology has been repeatedly endorsed by leading steelmakers. It follows that on any realistic analysis the ambitious emissions reductions targets for the steel industry can be actioned by the adoption of H-DRI steelmaking, and that journey has begun. The argument that this is the technology of the distant future is simply wrong.
125. In contrast to the speedy and ongoing uptake of Hydrogen based steelmaking technologies, the evidence before the inquiry confirmed the steelmaking market to be significantly more resistant to the adoption of CCS on which the Applicant's need case is heavily reliant.
126. Mr. Truman acknowledged there are no BF-BOF plants utilising CCUS technology (indeed that "its use in steelmaking is negligible at present"¹¹⁴), and frankly confirmed that "it is not a long-term solution, absolutely." Professor Nilsson agreed, explaining that emissions reductions from Hydrogen steelmaking projects are "completely outpacing what we see coming for CCS," meaning "the steel industry is moving away from CCS." Professor Haszeldine similarly noted "it's clear that CCS is not being favoured by the major steelmaking companies."
127. Professor Nilsson¹¹⁵ explained the reluctance to adopt CCS to be partially due to cost constraints (see the WM Report's assessment: "The concept of CCS has been understood for a long time, but has not been significantly developed primarily because it is very expensive"¹¹⁶) and partly due to "the realisation that emissions do actually have to go to zero" in a short space of time. This has led to industry recognition that reductions of 20-30% were unlikely to assist within that window and "do[n]'t come close to reaching the set targets."
128. Simply put, CCS in coal-based steelmaking is not an effective way to meet the levels of emissions reductions required by the UK/EU by 2035, because as the WM report itself acknowledges "such a high level of capture efficiency is not

¹¹⁴ WCM/JT/1, §4.7

¹¹⁵ See SLACC/LN/3, §5.6

¹¹⁶ WCM/JT/2, §1.54.

considered to be practically possible”¹¹⁷ at present, and given that CCS has not yet been successfully used in steelmaking to date, the window in which it could be realistically deployed is closing rapidly. It is therefore uncertain what contribution CCS in coal-based steelmaking may make to emissions reductions up to 2035, up to 2050 or at all.

129. Indeed, in the penultimate week of the Inquiry, one of the two CCS projects listed in the Green Steel Tracker (and the only one intended to be more than a “pilot” scale)¹¹⁸ was scrapped in favour of H-DRI technology.¹¹⁹
130. The scope for CCS to assist in abating emissions over the coming decades of transition was also explained to be limited. Doing so results in a commitment or ‘lock in’ carbon emissions, albeit at a somewhat lower level. Whilst CCS could be utilised in future for the production of Blue Hydrogen for H-DRI¹²⁰, Professor Nilsson confirmed “the shift to Hydrogen steelmaking is more critical” than adding CCS to BF-BOF production given the UK/EU emissions reductions targets and the speed with which they are to be met.
131. In light of the above assessment, it is difficult to see the justification behind WCM’s optimism concerning CCUS, a longstanding technology which remains expensive and unpopular, and also in their pessimism for Hydrogen which, as discussed, is already being implemented in industry. The clear expert opinions of Professor Nilsson, Professor Ekins and Professor Haszeldine were that Hydrogen steelmaking would become commercially viable even more speedily than previously thought, and that although there was a role for CCS in the emissions abatement picture, it would be secondary to H-DRI technology. That conclusion is wholly supported by analysis of the steel industry in practice. In short, there is likely to be no need for coking coal in the steel industry as early as the 2030s as H-DRI technology becomes the primary method of steel production. The result is that there can be no need for the product of the proposed mine, at least in Europe, and

¹¹⁷ WCM/JT/2, §1.56

¹¹⁸ SLACC/LN/2 Appendix 12, Table 1, row 2 (Tata Steel, “Athos” project).

¹¹⁹ ID 63.

¹²⁰ SLACC/PE/1, §6.10, Appendix 8

accordingly the benefits of the coal's extraction to that region appear vanishingly small.

132. The above arguments clearly undermine the claimed longevity of BF-BOF steel production in the UK/EU and of any possible "transition" savings by opening the proposed mine on the basis that the WCM's coal will provide a local substitute for coal presently imported from the US. So too does the "perfect substitution error" addressed in the climate change section.

Beyond Europe: exporting indigenous supply

133. It follows from the decline of BF-BOF production in the UK/Europe set out above that a principle touted benefit of the scheme falls away: the claim that the WCM coal would provide an indigenous supply for those regions.¹²¹
134. The Applicant's case has been that around 85%¹²² of the WCM coal product would be exported to the EU, and in evidence Mr. Kirkbride assured the Inspector that WCM coal would not be exported beyond the UK and Europe. yet the export of the WCM product beyond European borders (in light of the quality of the product and the decline of BF-BOF production) has always been written into the DNA of this development: as Mr. Kirkbride recognised, Javelin (who are contracted to market the WCM coal) are a *global* commodities trader whose largest geographical market is in fact Asia.¹²³
135. The more WCM's evidence developed, the more clear it became that it includes the sale of the coal outside of Europe. Mr Truman's evidence referred to Japan, India and China,¹²⁴ and when the Wood Mackenzie addendum arrived on the morning

¹²¹ CD4.5, §7.328

¹²² WC/MAK/1, §9.7

¹²³ See SLACC/SH/3 – Appendix 3, p. 67. When questioned on this topic, Mr. Kirkbride attempted to argue that Asia was not *necessarily* the largest relevant geographical market because the 'geographical market' aspect of the table does not break down revenue in terms of which commodity is marketed in which region. That argument is unsustainable, given immediately above the 'geographical markets' table is a table which breaks down the 'type or good or service' traded by Javelin. Even cursory analysis shows that coal is by far the dominant commodity traded by Javelin (99.4% in 2019 (\$1,461,474 of a total revenue of \$1,469,358), and 98.9% in 2018 (\$1,986,346 of a total revenue of \$2,008,280) such that it is mathematically impossible for the dominant geographical market for javelin's trading of coal in 2019 to be anywhere other than Asia.

¹²⁴ WCM/JT/3 § 3.4; WCM/JT/1 section 4.

of the inquiry opening, it stated in terms that if the UK and EU market is not available then WCM will sell the coal in Asia.¹²⁵

136. WCM now therefore find themselves in an difficult position: Mr Truman, their sole witness on the need for coking coal readily agreed that on the only WCM modelling scenario that reflects present UK/EU policy shows that there will be no need for coking coal in the UK/Europe by early 2040s (before which there would be a period of rapid decline). Mr Truman’s “straight up” view was that despite this, the need for WCM coal would not be extinguished because it could still be marketed in non-EU countries such Serbia¹²⁶, Bosnia and Herzegovina,¹²⁷ Turkey,¹²⁸ Japan, India and China adding:

“it would make complete sense that the company would try and place the coal somewhere else if they could rather than jeopardise the jobs of those miners which are continuing to work there. They would try to keep the business going, and [...] there are a number of markets available.”

137. Whilst it may well be true that WCM could mitigate the position of a diminishing UK/EU market, this is flatly inconsistent with the Applicant’s case that the supply of coal from the proposed development would fulfil a domestic and European need which is of “national importance”¹²⁹, and that it would “support the transition to a low carbon future ... [because it] will: Provide a European source of HV HCC, and therefore reduce transportation emissions.”¹³⁰ The fact that there is no such need is the reason WCM have been forced to admit it may well look beyond Europe. The sale of the coal also underlines what has always been hidden in plain sight: the obvious commercial driver for this scheme, is profit for WCM rather than benefit for the EU/UK or emissions reductions.

138. That WCM will likely market their coal outside European borders plainly also eliminates any argument for claimed transport emissions benefits created by the

¹²⁵ IN/1 §1.15.

¹²⁶ WCM/JT/2, Fig. 1.6 (see caption).

¹²⁷ WCM/JT/2, Fig. 1.6, Fig.2.5.

¹²⁸ WCM/JT/1, §5.5, Fig. 2.5.

¹²⁹ CD15.1, §114-115.

¹³⁰ CD15.1, §108.

WCM mine.¹³¹ Mr. Truman’s attempt to salvage the ‘transport savings’ argument by undertaking a token calculation of proposed net emissions saving on the basis of export to Japan¹³² was unsuccessful: for starters, as Professor Ekins pointed out, that analysis uses the lower Ecolyse 1 figures, compares the mitigated WCM emissions against unmitigated figures for other mines, and cherry-picks the lowest figure of any year in which the mine is in full operation.¹³³ . The calculation remains unreliable, but reveals a stark, concrete truth that the WCM product will be sold to whatever market is most profitable to WCM whatever the transport emissions. There can accordingly be no confidence in any transport savings offered by the WCM coal supply.

Undesirable coal qualities for the UK and EU market

139. Even were the above arguments unsuccessful, and if, counter to all current industry indicators BF-BOF production persisted through 2040 and beyond, and if the WCM product could be said to perfectly substitute for currently imported coal, then there would nevertheless be no need for the proposed WCM product in the UK/EU. The product is not of sufficient quality for use in the steel mills in those regions due to its extremely high Sulphur content.
140. Mr. Kirkbride agreed that Sulphur was a constraining factor which currently limits the use of coal,¹³⁴ and that as concluded within the Wardell Armstrong Report¹³⁵ Sulphur content is an “important parameter” for identifying high quality marketable metallurgical coal.¹³⁶
141. Such classification is central to the saleability of the coal, Professor Haszeldine explained, because higher Sulphur content can impact the quality of the steel product derived from it, and can attract price penalties designed to minimise adverse environmental effects of high Sulphur use. The Applicant’s response to

¹³¹ CD1.59, §4.2.12-4.2.15.

¹³² WCM/JT/3, §3.4.

¹³³ SLACC/PE/4 §2.4.3-2.4.10.

¹³⁴ CD2.75 (answer 2), p. 1 (p.265 of the CD2 hard numbering).

¹³⁵ CD9.12, §5.1.9-5.1.10.

¹³⁶ Note also that the CHPP Briefing Notice which preceded the 2 October 2020 OR, concedes “Sulphur is considered a less desirable property when buyers review any coal product specification” (CD2.68, p.1 (p.200 hard numbering)).

this, foreshadowed in Professor Haszeldine's cross-examination, was to seek to dismiss his evidence on the basis of his lack of experience in mining, ignoring the centrality of his particular expertise in geology, and to refer to his rebuttal proof and its appendices suggest that all of his evidence was based on a misunderstanding of the UK and EU regulatory position. As pointed out in re-examination, that ignores the basic chronology: nothing in Professor Haszeldine's main proof of evidence or in the Edinburgh Report was based on his understanding of European or UK legislation or regulation.

142. Clarity on the quality of the product to be produced at the mine is paramount for determining its specific market and therefore the extent, if any, of the claimed substitution or emissions savings. Professor Haszeldine was clear in his conclusion that classically, the international standard for premium HVA coal was 0.5%-1.1%,¹³⁷ and that a Sulphur value over 1.3% would very unlikely attract such specification.¹³⁸ Mr. Truman similarly confirmed that 1% Sulphur was the desirable level for HVA coking coal that those in the industry typically "shoot for". The Wardell Armstrong Report referred to all coals over 1% Sulphur as "higher sulphur"¹³⁹ and, indeed, seaborne coals with Sulphur levels exceeding 0.7% attract price penalties in practice.¹⁴⁰
143. The summary of industry data collected within the Edinburgh Report, co-authored by Professor Haszeldine,¹⁴¹ endorsed that approach, with Professor Haszeldine repeating "premium coals may be down at 0.5%" but "poor and marginal coals are above 1.1%." All seaborne hard coking coals in the recent S&P Global Platts Specification Guide for Global metallurgical coal had quoted Sulphur levels of under 1% in support of his assessment.¹⁴² Even the WM Report indicated that HVA

¹³⁷ See also SLACC/SH/1, §6.5, SLACC/SH/2, Figs.4-6 and 11-14.

¹³⁸ SLACC/SH/1, §5.4, SLACC/SH/2 – Appendix 1, Fig. 7

¹³⁹ CD9.12, §4.1.5 (hard copy p. 830).

¹⁴⁰ SLACC/SH/3 – Appendix R2, p.25.

¹⁴¹ SLACC/SH/1, §5.3. The Applicant repeatedly wrongly mischaracterised this report as a student project or as something produced "under supervision", rather than a co-authored piece of work, fully referenced to peer reviewed materials.

¹⁴² SLACC/SH/3, - Appendix R2, pp.21-22

coal has a maximum Sulphur content of 1.3% and that HVB coal has a maximum Sulphur content of 1.4%.¹⁴³

144. The marketability of the coal extracted from the two coal seams targeted by WCM¹⁴⁴ was called into question therefore when anecdotal evidence about the high Sulphur level in the region was proved correct:¹⁴⁵ the 'Main Band' has an average Sulphur content of 1.9% and the 'Bannock Band' an average of 2.6%.¹⁴⁶ As a starting point therefore, the targeted coal "is between 90% and 260% greater than competing metallurgical coals currently traded internationally"¹⁴⁷ Professor Haszeldine explained. The situation cannot be entirely overcome by 'processing' the Run-of-Mine coal. Javelin confirm that after processing, the proposed WCM product still exceeds the 1.1% Sulphur content produced by West Virginia coal mines at 1.4% Sulphur,¹⁴⁸ and in fact whether this Sulphur reduction is achievable remains dubious, with Mr. Dean, the Technical Director of Wardell Armstrong noting "I cannot see how a yearly average of 1.4% is achievable."¹⁴⁹
145. It is therefore extremely difficult to see how the WCM coal could possibly be designated as being of 'premium quality.'¹⁵⁰ Mr. Truman fairly concluded that if WCM produced coal with higher Sulphur content than the specification he had been provided, this would be "a move in a more difficult direction," which would require significant blending with lower volatility coals, although it "would not necessarily be totally restrictive." Of course, the reliance on blending with foreign lower Sulphur coals further undermines the 'transport emissions savings' and 'perfect substitution' arguments, as well as calling into question the real purpose of opening an 'indigenous supply.' Such preliminary responses as have been made available to the inquiry would suggest indeed that the high Sulphur WCM coal would not be attractive to UK steelmakers, with British Steel noting frankly: "the

¹⁴³ WCM/JT/2, Table 2.2, p.22.

¹⁴⁴ CD1.83, §51

¹⁴⁵ SLACC/SH/2 – Appendix 1

¹⁴⁶ SLACC/SH/1, §6.4, SLACC/SH/2 – Appendix 1, Fig. 19 and Fig. 20.

¹⁴⁷ SLACC/SH/2 – Appendix 1, p. 31

¹⁴⁸ CD2.73, p.262.

¹⁴⁹ SLACC/SH/2 – Appendix 5, p.1

¹⁵⁰ As Mr. Kirkbride, for example, has claimed (see WCM/MAK/1, §4.3)

Sulphur content of the coal is an issue for British Steel currently due to our operational and blend sulphur limit.”¹⁵¹

146. Although Mr. Truman and Mr. Kirkbride referred to the other aspects of the WCM coal as being attractive to steelmakers and the WCM Statement of Case avoided reference to the Sulphur content of the coal entirely,¹⁵² Professor Haszeldine clarified that “Sulphur in particular is an adverse value” and because “premium value implies top price” he was “doubtful that premium [designation] is correct.” His conclusion is supported by Javelin’s¹⁵³ concession that if the WCM coal product’s value exceeded 1.7% it would no longer attract HVA status irrespective of its other qualities. Professor Haszeldine therefore entirely reasonably went on to explain that yes, a “basket” of properties are relevant to the performance of coking coal, but “for a premium quality coal, you need to hit all of those values” and in this case the “Sulphur is very far away from a premium coal.”
147. Despite Mr. Kirkbride’s bizarre assertion¹⁵⁴ to the contrary, Professor Haszeldine confirmed the MPI to be “an extremely valuable research and technology institute” for whom “had very high regard.” The MPI also clearly concluded the Sulphur content of the WCM product was “high, undesirable for good quality coal.”¹⁵⁵ Whilst Mr. Kirkbride refused to accept that assessment, he did acknowledge the MPI’s conclusion that¹⁵⁶ that the product of the mine would *not* exhibit all the key parameters for ‘HVA’ quality coal, and as a result conceded “we would expect there to be a discount on our coal selling price against the benchmark for sulphur.”

¹⁵¹ CD2.75, p. 266

¹⁵² CD15.1, §112

¹⁵³ CD2.73, hard copy p.258-9

¹⁵⁴ At one stage Mr. Kirkbride attempted to deny that the Materials Processing Institute was an appropriate expert organisation in this field (despite Mr. Kirkbride no doubt being fully aware (due to his extensive background in mining (see WCM/MAK/1, §1.2)) that the MPI is a globally recognised institute with a 75-year track record of researching and innovating technology for advanced materials, predominantly in the steel industry specifically both internationally and in the UK where it is based) and stated that it was impossible to discern whether they had in fact drafted the letter which purported to be their report which was on headed paper and stated on its face “the institute’s views and expert opinions are recorded against the JT/2 paragraph numbers as follows [...]” (SLACC/SH/3 – Appendix 3 (R3), p1).

¹⁵⁵ SLACC/SH/3 – Appendix 1, p. 3

¹⁵⁶ SLACC/SH/3 – Appendix 1, p.4 (§2.10)

148. The true position concerning the WCM coal, even now, remains opaque. It is typified by Mr Kirkbride's response when it was pointed out that the Condensed Annual Cashflow on which he relied included both HVA and HVB coal under yield and revenue.¹⁵⁷ That response simply asserted that the references to HVA and HVB coal were an error, and should be substituted with "Primary Stream" and "Secondary Stream".¹⁵⁸ This is another example of where the Applicant seeks to pivot when SLACC exposes an inconvenient truth about its application: in similar vein to Ecolyse 2, where the numbers changed significantly but the assessment stayed precisely the same, here the words have changed significantly but the numbers stayed precisely the same.
149. Mr Kirkbride's response is unconvincing. In the initial financial model, 80% of the product (54.2 Mt out of a total of 67.7 Mt) was labelled as HVA Coal, whilst the remaining 20% was labelled HVB Coal. This appears to relate back to the indication by Mr Kirkbride that the coal washing plant would produce 80% of the product at a sulphur content below 1.4% but that the rest of the coal might range up to 1.6% sulphur.¹⁵⁹ The person within WCM who developed the financial model appears to have considered that the coal which exceeded the 1.4% figure would not constitute HVA coal and could only be classed as HVB.
150. Mr Kirkbride provides no explanation in his note for why these terms might have been used in the financial model, it is just asserted that they are incorrect and should be changed to "Primary Stream" and "Secondary Stream". Whatever WCM now wishes to call the product, they have provided no explanation which would indicate that their judgment when making the model was otherwise than what appears on the face of the model – i.e. that 20% of the product will not be HVA coal.

¹⁵⁷ WCM/MAK/2 Appendix 5 pg 77.

¹⁵⁸ Query raised on 17/9/21, response provided at 18h41 on the evening of the 30/9/21, the penultimate day of the inquiry, less than a working day before Closings.

¹⁵⁹ MAK/1 §7.11.

151. In any event, it is clear that the increased sulphur content of the coal results in a product of lesser value¹⁶⁰ and that WCM's case that "100% of the coal extracted at the Colliery would be premium metallurgical coal" and that the coal "is a premium High Volatile 'A' product" cannot be sustained.¹⁶¹ It also further diminishes the confidence the Inspector and Secretary of State can have that the product of the mine will be saleable in the UK and Europe.
152. Despite the need for the coal clearly being a key issue to be debated at the inquiry, no information was submitted in evidence by WCM in relation to the basic question – namely whether any prospective buyers had expressed interest in the coal. Mr Kirkbride gave a variety of different answers when it was put to him that WCM could not identify a single steel manufacturer that had confirmed they could or would use the WCM product.¹⁶² The Inspector highlighted that if Mr. Kirkbride did have evidence which confirmed that a UK/EU steelmaker had agreed the WCM coal could be utilised, it should be submitted to the inquiry, in redacted form if necessary.
153. Over two weeks later¹⁶³, WCM submitted a short collection of documents titled 'letters of support.'¹⁶⁴ The documents do not contain a single commitment from any EU/UK steelmaker to use the WCM product.
154. Indeed, the little information that has been provided is repetitious of documents already before the inquiry or is outdated. The letter from Javelin (dated 10 August 2021) is already before the inquiry and it is surprising Mr Kirkbride has chosen to

¹⁶⁰ It may be seen from a simple mathematical exercise that the HVB coal (or "secondary stream" in the new parlance) labelled in the Annual Cashflow attracts a lower price per tonne than the HVA coal (or "primary stream"). Taking the first year in which the model shows production of 2.78 Mt the proposed maximum production – i.e. 2031 - WCM projects producing 2.2 Mt of HVA and 0.6 Mt of HVB. It anticipates revenues on the HVA of £260.2 million (or approximately £118 per tonne) versus revenues on HVB of £54.4 million (or approximately £91 per tonne). Thus, the HVB coal only attracts roughly three quarters the price of the HVA coal.

¹⁶¹ WCM Statement of Case CD 15.1 para 12(d).

¹⁶² Ranging from suggested WCM "had exhibited letters of support in the past" to referring to purported personal meetings with buyers of all major UK/EU steelworks to suggesting he could provide documents to the inquiry.

¹⁶³ Email from Mr. Hyder to Ms. Humphrey of 28 September 2021 at 21:42

¹⁶⁴ ID60.

produce it as a 'new' document because he was directly questioned about it in cross examination and it was appended to his proof of evidence.¹⁶⁵

155. The letter from Tata Steel (dated 7 March 2017) is from four and a half years ago, is apparently not based on any particular coal specification (and in particular not on the basis of the present Sulphur specification) and is in any event expressly stated to contain "no firm commitment" to purchase WCM coal. Similarly, the letter from British Steel (dated 27 February 2017) is from over four and a half years ago, is not based on an identified coal specification and is superseded by later British Steel comment that the WCM coal is unsuitable due to its high Sulphur content (discussed above).¹⁶⁶
156. It is of course noted that both 2017 letters were drafted at a time when WCM were proposing to produce 'middlings coal'¹⁶⁷ as a by-product in order to achieve a higher quality of coking coal (with a lower Sulphur content (1.25%¹⁶⁸) than presently proposed), and that this process has now been abandoned by WCM. Any interest in the coal proposed for production at that time therefore cannot be assumed to persist.
157. The letter from 'Hargreaves Raw Materials Services' is undated (apparently attached as a pre-prepared summary by WCM¹⁶⁹ in an email from Mr. Kirkbride to Ms. Dietzen on 22 September 2021) but refers to an apparent Memorandum of Understanding dated 15 October 2019. It is unclear, what, if any coal specification this agreement is based upon or whether Hargreaves are aware of the present coal specification WCM aims to produce at the mine. In any event, the MOU simply sets out "principal terms and conditions on which the Parties are seeking to enter into a formal coking coal sales and purchase agreement." In other words, there is an agreement to consider a future contract for sales, but no commitment has been made. Of course, in October 2019, when the MOU was signed, the proposal from WCM had yet to have been amended and so was still to produce metallurgical coal

¹⁶⁵ At WCM/MAK/2 – Appendix 6, p. 78

¹⁶⁶ CD2.75, p. 266

¹⁶⁷ CD4.1, §6.68, hard copy p. 25

¹⁶⁸ CD4.1, "Metallurgical Coal" definition, p. 141

¹⁶⁹ Mr Kirkbride's email includes the phrase "I have prepared a summary and attached this..."

with a maximum sulphur content of 1.25%, as set out in the March 2019 OR.¹⁷⁰ Little weight should therefore be given to this speculative agreement to consider a future contract, which is likely based on a different coal specification.

158. In any event, Hargreaves are not a steelmaker, but a global commodities trader and so the letter cannot amount to a confirmation that a steelmaker has agreed to use the WCM coal – indeed, nothing is said about where the coal might be sold, so the letter clearly does not constitute evidence that the coal would be used in the UK or Europe.
159. If the WCM case is to be believed, their coal is a “critical raw material” and fulfils a nationally important need. If that were true, one might have assumed that WCM would be able to produce statements of support from actual steelmakers keen to use the coal. It is remarkable that WCM have provided no evidence as to who needs the WCM coal, especially after the point was highlighted to the inquiry and Mr. Kirkbride committed to producing such evidence. Far more is revealed by what is not contained in the recently submitted ‘support’ documents: they do not contain a statement by a single UK or EU steelmaker that they are likely to use WCM coal, let alone a firm commitment to do so. The inclusion of documents from 2017 and documents the inquiry has already considered only brings that absence into sharper relief.
160. The only firm evidence to which Mr. Kirkbride could point during evidence concerning the purportedly secure European sale for the WCM coal was a letter from Javelin¹⁷¹ concerning a proposed agreement between the same and WCM. It was touted as evidence of a firm commitment by Javelin to *selling* the WCM coal to the European market. Yet, on any analysis, it only evinces a proposed agreement by Javelin to *market* the coal in the UK and Europe, and of course Javelin’s credentials as a global commodities trader with a focus in Asia were plain to see.

¹⁷⁰ CD4.1 p. 141.

¹⁷¹ WCM/MAK/2 – Appendix 6, p.30 (paragraph 9).

161. There are, therefore, very significant question marks over whether the product of the WCM mine could be used within the UK/EU due to its high Sulphur content. These concerns could have been allayed by WCM via the release of details about the Run-Of-Mine coal. Yet no such information has been provided despite repeated request¹⁷² and Professor Haszeldine explained that even WA were “provided with a selective and incomplete set of information” about the ROM coal,¹⁷³ despite it being clear that “WCM have access to a swathe of information from the exploration borehole.”¹⁷⁴
162. This data has not even been shared with the experts upon whom WCM seek to rely. As with WA,¹⁷⁵ Mr. Truman confirmed that the conclusions reached by Wood Mackenzie as to the marketability of the WCM coal were based solely on an indicative specification¹⁷⁶ provided by WCM which Mr. Truman could not confirm to be achievable in practice. More troubling still, Mr Truman agreed he had not seen the *application* specification document which contained *different* Sulphur values¹⁷⁷ and confirmed that he had no knowledge of how to address the accuracy of one specification over the other.
163. This is a critical point given WCM or its agents have variously stated the Sulphur content (or Sulphur content limit) of the WCM coal to be 1.25% Sulphur¹⁷⁸, a maximum 1.7% Sulphur¹⁷⁹, maximum 2% Sulphur,¹⁸⁰ <1.4% Sulphur¹⁸¹, <1.5% Sulphur¹⁸², <1.6% Sulphur¹⁸³, <1.7% Sulphur,¹⁸⁴ a range of between 1.5% and

¹⁷² SLACC/SH/2 – Appendix 2.

¹⁷³ See, CD9.12 at §4.3.1 (“Specific comment on the variability of the sulphur and ash in the coal [...] cannot be made by WA without access to the results of the exploration programme”), and §4.4.1 (“WA has not ha[d] access to the results and modelling of the coal deposit”)

¹⁷⁴ See CD15.1, §6 and §46

¹⁷⁵ CD9.12, §4.3.1 and §4.4.1

¹⁷⁶ Which stated Sulphur level would be at <1.5%, WCM/MAK/2 – Appendix 3

¹⁷⁷ See Appendix 4 to ID51.

¹⁷⁸ CD4.5, §7.88

¹⁷⁹ Mr Babbage expert Opinion (sept 2020)- ED q. 21, Truman XX, see also the email from Mr. Murphy to Mr. Kenyon on 30 July 2020 in which Mr. Murphy explains “we appear to be stuck with having to set a maxima and on the advice of our QC will have to accept a maxima of 1.7% given what you say about the letter from Javelin” (requested to be included in CD2.71 at p.254A, see also ID 24 and ID25).

¹⁸⁰ CD2.68, p. 4, CD1.59, p.51 (hard copy p. 122).

¹⁸¹ Provided with ID51.

¹⁸² WCM/MAK/2 – Appendix 3, WCM/JT/1, §5.4, and WCM/JT2, Table 2.2.

¹⁸³ CD2.71, hard copy p. 255.

¹⁸⁴ CD4.5, §4.8, hard copy p. 860-861

1.8% Sulphur,¹⁸⁵ a range of between 1.3% and 1.4% Sulphur¹⁸⁶, and maximum 1.6% Sulphur with 80% output at 1.4% Sulphur.¹⁸⁷ On this basis, Professor Haszeldine fairly understated that he had a “moving target” of asserted values for the WCM product.

164. Mr Kirkbride’s answer to concerns over the high Sulphur level in West Cumbria relied heavily on the ‘washing’ of the coal to be undertaken at the Coal Handling and Processing Plant (**‘CHPP’**). There are two problems with this position: first (as above), the inquiry has not been provided with sufficient detail regarding the ROM coal and we do not know, with any accuracy, the extent of the ‘work’ that the CHPP will be required to do, and second, insufficient details of the ‘updated’ CHPP have been released such that no one knows how what ‘work’ can be undertaken, whether the extent of the proposed sulphur removal is possible, or the environmental consequences of the same.
165. The original design for the CHPP was provided by the Daniels Company,¹⁸⁸ however a Briefing Note which preceded the determination of the application in October 2020 explained WCM had engaged the services of Parnaby Cyclones to complete the CHPP and that as a result of a “revision” and “redesign”¹⁸⁹ the original plant (with a cut off at 1.4% Sulphur) was being amended to limit the Sulphur at 1.8%.¹⁹⁰
166. Despite Parnaby Cyclones providing updated drawings and designs to WCM¹⁹¹, no further diagrams or technical explanation was provided by WCM to the Council within the Briefing Note. WCM simply sought to inform the Council that the description of the operation of the CHPP was as it had been in the original application and EIA, stating the “description of the internal processes of the CHPP

¹⁸⁵ CD2.71, hard copy p.254B, ID24.

¹⁸⁶ CD2.68, p5 (hard copy p.204)

¹⁸⁷ WCM/MAK/1, §7.11

¹⁸⁸ WCM/MAK/3, §4.37

¹⁸⁹ CD2.68, p.203

¹⁹⁰ CD2.68, p.200

¹⁹¹ “The enclosed drawing and designs are issued for your approval; we shall of course continue to finalise the finer detailed design work and specific equipment section” – WCM/MAK/2 – Appendix 2 (p.71)

is not material in terms of determining a planning application.”¹⁹² Beyond a blunt assurance from Parnaby Cyclones¹⁹³ Mr. Kirkbride provided no further detail as to how the proposed post-washing Sulphur level was achievable, placing significant reliance on “a change to the internal process within the [CHPP] building”. Mr. Kirkbride’s further answer to the point provided little comfort: “It’s not a redesign, it’s an update” he said, before stating that “it’s exactly the same basis of the plant,” denying any “significant change.”

167. That answer is inconsistent with Mr. Kirkbride’s written evidence, however, which plainly states that the “update work has been undertaken to introduce new technological advancements in the design of specific aspects of the plant since the previous studies completed more than four years ago,”¹⁹⁴ including the relocation of the main crusher underground to reduce noise, the installation of sizing screens, modification of the primary cyclone size, update of a large diameter high rate thickener, the installation of vacuum filtration belt, and the introduction of plate presses.¹⁹⁵ It is difficult to reject the conclusion reached by Professor Haszeldine therefore that “we’re in the dark about whether there is a material change or not” commenting that in preparation he “was left very frustrated” due to missing information about the CHPP.
168. The absent information also means that EIA cannot be conducted in respect of any elements of the revised CHPP, especially the potential impact of any waste product. Professor Haszeldine set out in his written and oral evidence why the waste leaving the coal washing plant, which would contain concentrated levels of sulphur washed off the coal, could lead to acid mine drainage (AMD).¹⁹⁶ The risk of such acid mine drainage is sensitive to the amount of sulphur in the ROM coal, because high levels in the ROM coal will mean that larger amounts of sulphur are washed off and sent back into the mine during the “backfill” process. Of course, following the Briefing Note, WCM now claim to seek to produce a lower level of

¹⁹² CD2.68, p.202.

¹⁹³ WCM/MAK/2 – Appendix 2.

¹⁹⁴ WCM/MAK/1, §7.9

¹⁹⁵ WCM/MAK/1, §7.8

¹⁹⁶ SLACC/SH/1 § 8.1-8.2.

Sulphur (<1.5%)¹⁹⁷ than proposed in the “revised CHPP” (1.8%¹⁹⁸ based on a definition of metallurgical coal as max Sulphur 2%.¹⁹⁹), and, again how this will be accommodated within the CHPP has not been explained, nor is there any evidence that consideration has been given to the risk of AMD.

169. The position in respect of whether a condition limiting the definition of “metallurgical coal” and the Sulphur content also remains opaque. Mr. Kirkbride told the inquiry that he would be happy to accept a condition in the same terms imposed by the Development Control and Regulation Committee on 2 October 2020,²⁰⁰ but Mr. Jones QC reminded the Inspector that the WCM case (apparently) remains that such a condition is unnecessary.²⁰¹
170. As such, the inquiry still does not know what the specification of the ROM coal is, what the content of the CHPP is, or how the CHPP will process the ROM coal into the ‘processed’ specification provided by the Applicant. Indeed, there is considerable doubt given the high Sulphur content of the targeted coal seams whether it is possible to extract a coal product at the mine which could reasonably be used in UK/EU industry. If that were not enough, the Applicant has failed to provide clear specifications as to what Sulphur level the processed coal will actually contain, with the Council noting during the inquiry that the 2020 specification provided in the evidence of Mr. Kirkbride²⁰² did not match that which had been provided to the Council,²⁰³ and another 2020 specification document appears also to have been submitted²⁰⁴. Given the high likelihood that the coal in the region is incompatible with the UK/EU classification of ‘premium’ or HVA coals, and absent any evidence from the Applicant as to how the WCM coal will actually be usable in UK/EU steelmaking it is difficult to see how the Applicant

¹⁹⁷ WCM/MAK/2 – Appendix 3

¹⁹⁸ CD2.68, p.200

¹⁹⁹ CD2.68, p.203

²⁰⁰ i.e that contained within Proposed Condition 77 of the Report by Executive Director and accepted the DCRC (CD4.6), (hard copy p.1087)

²⁰¹ See also the WCM letter of 25 June 2021 (SLACC/SH/2 – Appendix 2, p. 39.

²⁰² WCM/MAK/2 – Appendix 3

²⁰³ ID51.

²⁰⁴ ID25, p.685

can allege with any degree of certainty that the WCM product would be needed by UK/EU steelmakers.

ENVIRONMENTAL IMPACTS

Effects on Character and Appearance

171. SLACC adopt the oral and written evidence provided by Mr. Peter Radmall on behalf of Friends of the Earth in terms of character and appearance, and his conclusions on that topic concerning both the development's impact on the RLF²⁰⁵ and on the Marchon Site.²⁰⁶ The application proposals conflict with Policy ENV5²⁰⁷ of the Copeland Local plan and Policy SP15 of the Copeland Minerals and Waste Local Plan.²⁰⁸ Substantial weight should be attributed to the landscape harm arising from the impact of the RLF, and less than substantial harm attributed to the landscape harm arising from the impact to the "significantly less sensitive" Marchon site.²⁰⁹

Effects on local amenity and Public Rights of Way

172. The Copeland Local Plan has identified that the Council will seek to maximise the potential of tourism in the area, particularly outside the Lake District National Park Boundaries via Policy ER10: Renaissance Through Tourism.²¹⁰ The Wainright Coast to Coast Walk and the public footpaths that connect the site with St. Bees have obvious appeal to tourists, fitting with the Local Plan's vision to provide improved links from the Coast-to-Coast walk to the English Coast Path to attract walking tourists.²¹¹ The St. Bees Local Parish has also published a series of guided walks in the area which includes a journey through the Pow Peck Valley.²¹²

²⁰⁵ See SLACC/PB/1, §7.38-41

²⁰⁶ See SLACC/PB/1, §7.42-45

²⁰⁷ CD5.8, p.404

²⁰⁸ CD5.9, p.643-645

²⁰⁹ FoE/PR/1, §7.8

²¹⁰ CD5.8, ER10 p.48, hard copy p. 377

²¹¹ See CD5.8, ST3 (p.28, hard copy p.357-8), ST4 (p.29-30, hard copy p. 358-360), ENV 3 (p.70-1, hard copy p. 399-400) and particularly ENV2 (p.69-70, hard copy p.398-399).

²¹² SLACC/PB/2 – Appendix 5

173. The proposed development will have an obvious adverse effect on local amenity and public rights of way, particularly in terms of the above stated policy objectives. The installation of the RLF and associated development threatens to undermine views of the Pow Beck Valley for those travelling on the Wainwright Coast to Coast walk, undermining the topology and predominantly open and undeveloped, tranquil²¹³ character of the valley.²¹⁴ This will have clear adverse impacts on local amenity and on the local tourism industry which have previously been recognised by the Council²¹⁵ and would result in conflict with Policy ER10 especially during the construction phase of development.²¹⁶
174. These harms were confirmed by Mr Bedwell, based on his numerous site visits. His own observations as an experienced planner confirmed that are confirmed by Mr Bedwell's site visit: "From my own observations having visited the site, I agree that [...] harm would be caused to local amenity and to users of the Coast to Coast Walk, and by extension, to the local tourism industry as a result of the Application Proposals."²¹⁷

Effects on Biodiversity

The Extent of Ancient Woodland

175. The protection given to ancient woodlands in planning policy is of the highest order. The NPPF indicates that ancient woodlands are irreplaceable habitats and paragraph 180(c) provides for their protection against any loss or deterioration, except where wholly exceptional reasons exist and where a suitable compensation strategy is provided.
176. It is undisputed that Bellhouse Gill Wood is ancient woodland.
177. The Applicant's case was difficult to pin down in respect of whether Roskapark Wood and Benhow Wood are also ancient woodlands which must be afforded

²¹³ WCM/PB/3, §3.30

²¹⁴ See SLACC/PB/1, §7.46-57

²¹⁵ CD4.5, §7.327, hard copy p. 590

²¹⁶ CD4.5, §7.262

²¹⁷ SLACC/PB/1, §7.55

protection under paragraph 180(c) and local policy. The Applicant agreed in the statement of common ground in respect of ecology that both Roskapark and Benhow Wood, whilst not listed in the ancient woodland inventory for England, “are mostly ancient semi-natural woodland.”²¹⁸

178. During the roundtable session on ecology, both Dr Shepherd and Dr Martin agreed that a woodland need not be listed on the ancient woodland inventory for England to qualify for protection as ancient woodland under national planning policy, and this is clearly reflected in government guidance.²¹⁹
179. Dr Shepherd for the applicant indicated that whilst he considered much of Roskapark Wood was ancient woodland, he considered that the area “immediately to the west of the St Bees Road, which has clearly been subject to quarrying activity in the past”.²²⁰ To support this view he produced a single historical map²²¹ which shows an area labelled “old quarries” largely to the east of the St Bees Road, with a very small area extending to the west. Indeed, the map shows most of the area to the west of the road as having tree cover.
180. Dr Martin’s rebuttal proof of evidence, provided much clearer evidence, overlaying the areas of former quarrying on a satellite image of the woodland with the application boundary overlain.²²² This undisputed evidence shows that almost the entirety of the application boundary overlies an area of ancient woodland for which there is no evidence of previous disturbance, with only a very small overlap with the area mapped as having been formerly quarried.
181. Even Dr Shepherd’s evidence which asserted that the area to the west of the road had been affected by past activity acknowledged that “a woodland ground flora with species associated with ancient woodland sites has recolonised” the area asserted to have been previously disturbed.²²³ But Dr Shepherd did not actually

²¹⁸ ID 55 §3.1.4.

²¹⁹ See CD11.2 pg. 62 (“Many of these [ancient woodlands] do not appear on the Ancient Woodland Inventory because their low tree density did not register as woodland on historic maps.”)

²²⁰ WCM/PS/1 §5.3

²²¹ WCM/PS/4 Appendix 2 (page 4).

²²² SLACC/TM/1 Fig 1, p. 14.

²²³ WCM/PS/1 §5.3.

produce any convincing evidence that there had been previous disturbance in all or even most of the area within Roskapark Wood inside the redline boundary, and indeed, as above, the historical map produced by him indicates the opposite.

182. In the light of this evidence, clearly the only conclusion that can be drawn is that most or all of the area of Roskapark Wood within the application boundary is ancient woodland and must be treated as such.

Cut and Cover

183. It is common ground that the “cut and cover” conveyor line construction methods proposed in the Application on the date of the call-in by the Secretary of State would result in some loss of irreplaceable ancient semi natural woodland.²²⁴ It was therefore accepted by the applicant prior to the proposed pipejacking amendment that there had to be wholly exceptional reasons for the grant of permission and a suitable compensation strategy for the application to be in accordance with national policy.
184. The applicant has sought to downplay the area of ancient woodland to be affected in two ways: First WCM has argued that the area of Roskapark wood to be crossed should not be treated as ancient woodland. For the reasons given above, that argument is wrong, and certainly does not represent a precautionary approach. In fact the evidence is that the limited previous activity in the wood overlaps only to a very small extent with the area to be crossed by the conveyor.
185. Second, the Applicant has sought to focus only on the narrow area of direct ground disturbance via excavation, and has sought to downplay other impacts. However, these other impacts are significant and must be considered. These include:
- a. **Direct disturbance:**
 - i. Government guidance provides that a buffer zone of *at least* 15 metres should be instituted around ancient woodlands to avoid root damage, and notes that “where assessment shows other impacts are likely to extend beyond this distance, you’re likely to need a larger buffer zone.”²²⁵ Dr Shepherd accepted in the roundtable that a minimum of 15m should be imposed in the pipejacking scheme to protect the woodland. It may also be noted that buffer zones around ancient and veteran trees may be larger depending on tree diameter (they should be at least 15 times larger than the tree diameter or 5 metres beyond the edge of the tree’s canopy, whichever is the larger)²²⁶ but no tree survey exists to determine if the trees in areas

²²⁴ ID 55 § 3.2.1.

²²⁵ CD11.2, page 65.

²²⁶ CD11.2, page 65.

of the ancient woodlands to be crossed may be ancient/veteran and thus require these larger buffer zones.

- ii. Given statutory guidance indicates that that works within 15m or more of ancient woodland may cause direct effects, the true area of ancient woodland likely to be affected involves not the “narrow” corridor that actually passes through the woodland but the much wider area comprising a 15m zone around each the areas in which excavation or other activity is to take place.

b. Noise, disturbance, etc:

- i. Under current plans, there will be significant noise and disturbance over a significant period of time to the woodlands and in particular to Bellhouse Gill Wood. In particular, the construction phasing plan for the conveyor²²⁷ indicates (see the notes section in particular) that Phase 1 of the conveyor construction will be undertaken using an access route to the RLF site (dashed red line) and will proceed south to north.²²⁸ It is stated that surplus excavated fill of Phase 1 (which extends from the RLF northeast to St Bees Road) will be temporarily stored at the temporary laydown area at the RLF prior to export,²²⁹ raising the likelihood that construction vehicles will transport the surplus fill back along the route, through Bellhouse Gill Wood.
- ii. The access through the woodland and return transport of fill material is likely to involve significant disturbance to the woodland over a significant period. Dr Shepherd did not appear to have considered this, and indeed the question was fielded by Mr Kirkbride because Dr Shepherd was not aware of the arrangements. Whilst Mr Kirkbride indicated that there would not be traffic through the woodland, with respect, this seems in direct contradiction to what is set out in the current plans. (Likewise the only access shown off St Bees Road appears to be for entry of the

²²⁷ CD1.37.

²²⁸ CD1.37 note 10.

²²⁹ CD1.37 note 6. (It may also be noted that the phasing plan appears designed to minimise the impact on St Bees Road, but not on the woodland itself, see note 7)

Intermediate Access Building, once constructed, and so it is not clear that there is any provision for access as suggested by Mr Kirkbride.²³⁰)

186. In any event, no wholly exceptional circumstances exist nor does the applicant propose a suitable compensation scheme to make up for the loss of irreplaceable ancient woodland.
187. The Council concluded, during its consideration of the application, that “Whilst the ancient semi natural woodland habitat is an irreplaceable habitat, the area of loss is relatively small in area (284m²), there is a lack of alternative routes for the conveyor to the RLF and there are considerable local and national benefits of the wider scheme.”²³¹ On this basis, the Council concluded there were wholly exceptional circumstances to justify the loss of the woodland.
188. Of course, whether these benefits arise (and their extent) is disputed. However, in any event, this was before the new evidence that Roskapark/Benhow wood are ancient woodlands, and in any event failed to take into account the wider issues of direct impacts from ground disturbance and noise, vehicle movements, etc. In reality the area affected is much larger and there was no serious consideration of the lengthy construction operations that will result in vehicles crossing the woodland for a significant period.
189. In relation to whether a suitable compensation strategy exists, the Council concluded that the proposed compensation was “more than suitable” because “the applicant is proposing to plant at least twice the area of loss. The woodland species seedbank likely to be present in the soil is also proposed to be retained for spreading following installation of the conveyor.”²³²

²³⁰ CD1.39 (see small inset box at right, showing access to the fenced area in red). Certainly this plan does not represent the sort of plan one would expect to see were this access to be intended for large construction vehicles and lorries delivering 2.6 metre-high sections of the concrete culvert, etc. Compare, for example, with the other accesses shown on plans and incorporated into proposed condition 80 such as CD1,46 showing swept paths, etc.

²³¹ CD4.1 § 6.127 (p. 35)

²³² CD4.1 § 6.129 (p. 35)

190. First, this approach fails to deal with the fact that ancient woodland is considered irreplaceable for a reason. A mere calculation that twice the area will be planted now does not suffice to show that the quality of that irreplaceable habitat will be delivered. Second, the area proposed for planting is *already* a part of an acknowledged ancient woodland. Whilst the habitat may be improved to some degree, there is little evidence before the inquiry to show the baseline conditions in that area, as Dr Martin pointed out, and so there is nothing to indicate that a commitment to plant more there would represent a significant improvement, let alone suitable compensation for the loss of a significant area of other ancient woodland. Finally, Dr Martin provided new evidence that the area of compensation planting appears to be currently subject to an environmental stewardship agreement, and so there are questions whether the “compensation” is actually something that would not otherwise occur. Dr Shepherd indicated that he would want to consider the scope of that agreement and its purpose, but no further information has been provided.

191. In these circumstances, it is submitted that there is no evidence before this Inquiry on which to base a conclusion that wholly exceptional circumstances and a suitable compensation strategy exist.

Pipejacking

192. As set out in more detail in the legal submissions, it is SLACC’s position that there is not sufficient information before the Inquiry to adequately consider the pipejacking proposal nor to satisfy the requirements of the Environmental Impact Assessment regulations. Those points are not remade in these closing submissions and the Inspector is asked to have regard to the points in those submissions in terms of the inability to assess the current scheme based on current information.

193. In any event, SLACC’s position is that the current details of the pipejacking scheme as proposed, whilst they would likely *reduce* harm to the ancient woodland, would not eliminate it. It must of course be recalled that even the deterioration of ancient woodland requires wholly exceptional circumstances and a suitable compensation strategy under national planning policy.

194. During the roundtable session Dr Shepherd described the limited overhead views of the scheme that have been provided to date as “schematic” but implicitly recognised that they were not even detailed enough for instance to determine whether the shafts were within 15m of the woodlands.
195. On the last week of the inquiry, a plan showing a long section of the tunnel has now been provided by the applicant for the areas passing under the two woodlands, but there remain questions about whether the design therein is achievable²³³ and it does not show the full extent of the transition between the cut and cover and pipejacking technique.²³⁴
196. In any event, the works – even if appropriately buffered - will involve the risk of potential hydrological/hydrogeological impacts to the woodlands. These are proposed to be dealt with via condition, but there remain significant outstanding questions about whether there may be impacts that are not capable of mitigation.
197. Dr Shepherd accepted during the roundtable that if the streams in the woodlands run dry, for example because of dewatering caused by the pipe jacking, that would affect the woodlands, even though both streams do sometimes naturally run dry.
198. Dr Buss for SLACC indicated that there were risks from the proposed scheme and that proposed mitigation by the applicant could “lead to exacerbation of water loss from the gill and the wet ground adjacent to it” and considered that “lack of geological data at the pipe-jacking sites means that the merits of either of the proposed sets of hydrogeological layering scenarios cannot reliably be judged.”²³⁵ He concluded that “Appropriate mitigation of impacts on the woodlands and the

²³³ For example, there are shown, “kinks” in the pipe sections, but the Pipejacking Design Statement indicates that tunnelling will usually be done with “straight drives” but “more sophisticated ... drives [may have] included curves”. Pipejacking Design Statement p. 4.

²³⁴ In this regard, it may be noted that the depths shown for cut and cover excavation (such as e.g. 6 m in one area) would mean a cut and cover trench in that area of at least 8.6 m given the 2.6m height of the culvert sections. Pipejacking design statement, p. 6. This could result in significantly more excavated material than was previously anticipated and it is not clear how this will be dealt with or where it may be temporarily stored.

²³⁵ ID40 page 3.

gills cannot be designed without understanding the hydraulic properties of these formations or the range of groundwater levels.”²³⁶

199. Dr Buss also noted that there were risks that if the shafts at either end of the pipejacking sections required dewatering, that this could have a effect “on the woodlands and gills [which] has not been considered.”²³⁷
200. Dr Buss also noted that “leakage from the wet ground above the tunnel will, of course, also be exacerbated if the tunnelling leads to fracturing of the rock between the tunnel roof and the wet ground.”²³⁸
201. In response, a letter from the applicant’s hydrogeologist indicated that he considered there was no concern of impact to the ancient woodland because if dewatering were to occur, this “would only be in the order of a few weeks (3-4 weeks would be typical)” and therefore considered that any effect would be of short duration. Based on this he opined that the effects would not have a significant effect on the ancient woodland, but that appears to be an opinion given without any considered expertise from an ecologist as to whether a change of conditions for that length of time would impact the woodlands.
202. Importantly, the assumption that the dewatering might only last 3-4 weeks does not appear to accord with the Pipejacking Work Package which states that the duration of works in each pipejacking zone could last up to 4 months.²³⁹
203. It was Mr Harding’s view that in his experience of pipe-jacking, “the potential for formation of fractures is ... low.”²⁴⁰ He stated that this view was shared by another of the applicant’s contractors.
204. It is submitted that, taken together, there is simply not sufficient evidence before this Inquiry to rule out the risk of any of these areas of potential significant effects

²³⁶ Id.

²³⁷ Id.

²³⁸ Id.

²³⁹ Pipejacking Work Package, section 9, page 12.

²⁴⁰ ID48.

- yet any one of them should prevent this application being granted. This if of course, an application for full planning permission, and so the detail in the plans will not be able to be altered later if it is found that impacts would arise as the result of a ground or hydrological investigation.

205. Likewise, the duration of up to 4 months for the pipejacking works is relevant to the level of disturbance to woodlands that could occur during the construction of the shafts and tunnelling works. Though the applicant has made bare assertions that there will be no significant impacts on the woodland due to noise and vibration, there is no evidence to indicate what levels of noise and vibration are actually likely to be caused in the woodland due to the shaft construction and tunnelling works.
206. Significant questions therefore remain about the impacts of the pipejacking scheme and SLACC respectfully submits that (to the extent that the pipejacking scheme is considered), the only conclusion to reach is that it will cause loss or deterioration to ancient woodland. For the reasons given in the previous section, there are not exceptional circumstances nor a suitable compensation strategy to justify this loss or deterioration.

Biodiversity Net Gain

207. It is common ground between the Applicant and SLACC that a biodiversity metric is an appropriate method for assessing the ability of the scheme to deliver a biodiversity gain in habitat terms,²⁴¹ (i.e. it does not relate to biodiversity of species) and that the biodiversity metric 3.0 calculation shows there to be a net loss to biodiversity for the duration of the operation of the works.²⁴²
208. It is also agreed that policy SP15 of the Cumbria Minerals and Waste Local Plan applies to the development.²⁴³ This provides that developments should “Help secure movement from net loss of biodiversity towards achievement of net gains”. Likewise it is agreed that policy DM25 of the Copeland Local Plan applies²⁴⁴, which

²⁴¹ ID 55 § 3.1.7.

²⁴² ID 55 § 3.1.8.

²⁴³ ID 55 § 3.1.1.1.

²⁴⁴ ID 55 § 3.1.1.1.

states that “development proposals should protect biodiversity value and minimise fragmentation of habitats as well as maximising opportunities for conservation, restoration, enhancement and connection of habitats.”

1. The NPPF sets out that when determining planning applications, “if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.” (NPPF para. 180(a)).²⁴⁵ Dr Martin’s unchallenged view during the roundtable session was that the general benchmark applied now is that a development should seek to deliver 10% net gain.
209. The Applicant’s case, as put by Dr Shepherd, is that net gain achieved only after restoration of the site is sufficient to be considered an overall net gain. Dr Martin rightly pointed out that this would mean a significant and acknowledged loss over a period of at least 25 years and that there was no assurance that the net gain that was intended to be delivered by restoration of the site would actually persist. Indeed, Dr Shepherd acknowledged during the roundtable session that it is “entirely possible” that the site might be developed as it could be potentially attractive as a development site after the closure of the mine and that “ideally you would want to be putting it [the land] into the ownership and management of an organisation” that would provide assurance of a biodiversity gain in perpetuity.
210. It may be noted that the County Council when considering the proposal found that “A possible net gain over a very long period cannot be afforded anything but negligible weight” and that “given the lack of a demonstrable net gain in biodiversity” it was considered that “this counts against the proposal and should be afforded some weight.”²⁴⁶
211. The Council’s position is clearly the most sensible one. Given the Applicant’s admissions that (1) there is uncertainty whether biodiversity would be achieved for more than a very short period, decades hence, and (2) in the intervening period

²⁴⁵ Again, the applicant agrees this is an applicable policy to the proposed development. ID 55 § 3.1.1.2.

²⁴⁶ CD 4.5 §7.307, hard copy p.917.

– for at least 25 years - there will be a net loss, it cannot be said that, in the round, a net gain is delivered by the application. Instead, it is clear that there will be a net loss throughout (at least) the period of operation through the last day of 2049. Respectfully, if the targets for net gain in planning policy can be considered to be met by this approach, one could envisage developments around the country purporting to deliver “net gain” whilst actual biodiversity steadily erodes. This cannot be what is reasonably meant by the substance of the requirements for achievement of biodiversity net gains in local and national planning policy set out above.

Effects on Heritage

212. The adverse impact of the proposed development on the historic environment has been a longstanding concern in the course of this application. The October 2019 the Officer’s Report²⁴⁷ to the Council’s DCRC Committee identified “adverse impacts on the historic environment including a moderate adverse effect upon the listed building of Scalegill Hall and the adjoining barn” attracting “considerable importance and weight to this less than substantial harm.”²⁴⁸
213. Mr Bedwell is a Chartered Town Planner, a Member of the Royal Town Planning Institute and a planning expert with 31 years of experience in the profession, during which he was worked for a number of local authorities as well as in private practice.²⁴⁹
214. By virtue of his professional background, Mr. Bedwell plainly has experience in heritage matters, although he is not an expert in that particular field. Nevertheless, his aptitude for the discipline is clear in that he recognised mistakes in the Applicant’s heritage assessment, which erroneously stated²⁵⁰ the RLF and main site would not intrude into views of Scalegill Hall²⁵¹ and incorrectly stated the

²⁴⁷ CD4.3, §7.309, hard copy p.460

²⁴⁸ CD4.3, §7.310, hard copy p.460

²⁴⁹ SLACC/PB/1, §1.2

²⁵⁰ WCM/ST/2 – Appendix 2, §1.1.40

²⁵¹ SLACC/PB/3, §3.33-3.34

distance between the two sites was 3.1km, when it is in fact 1.375km.²⁵² Mr. Bedwell gave open and fair evidence and endeavoured to give the inquiry the benefit of his experience.

215. Mr Bedwell had visited the site on 9 August 2021, which allowed him to fully appreciate the heritage asset and its setting. He gave considered evidence on the impact that the development would have on both the immediate and wider setting of Scalegill Hall, confirming the significance of the asset was appreciable from both the eastern and western sides of the A595 (Egremont Road) and from “wider public vantage points” along the Coast to Coast Walk as it descends into the Pow Beck Valley. Mr. Bedwell’s assessment of the wider setting of the asset was called into question in cross examination, however he robustly defended his point of view as informed by his site visit, and his conclusions in that regard are classically a matter of planning judgment. The Inspector will appreciate the merits of Mr. Bedwell’s approach during the course of his site visit on 4 October 2021.
216. Mr. Bedwell’s conclusions in respect of the harm to the heritage asset were sound, chiming with the concerns raised in the October 2019 Officer’s Report in identifying that the significant change of views of Scalegill Hall from the Coast-to-Coast path caused by the RLF would diminish appreciation of the heritage asset, especially in light of its elevated location²⁵³ within the Pow Beck Valley.²⁵⁴
217. The application proposals are therefore in conflict with Policy ENV4: Heritage Assets (of the Copeland Local Plan).²⁵⁵ There is also conflict with paragraph 202 of the NPPF in that the very significant adverse impacts set out above are not counterbalanced by the public benefits of the scheme. As set out above, there is no need for the development or its product, and as set out below, the economic benefits for the local area are far less extensive than claimed by WCM.

²⁵² WCM/PB/3, §3.37

²⁵³ SLACC/PB/3 – Appendix R3

²⁵⁴ SLACC/PB/1, §7.16, §7.18

²⁵⁵ CD5.8, §7.5.1-§7.5.5, p.74, hard copy p. 403

ECONOMIC IMPACTS

218. SLACC's case has always acknowledged that there would be some economic benefit from this scheme, but, as explained by Mr Bedwell in his Proof of Evidence²⁵⁶ this should, in his professional view, be given a moderate weight. Mr Bedwell's assessment has continuities with the approach taken by the Council in their three Officers Reports of March²⁵⁷ and October²⁵⁸ 2019 and October 2020²⁵⁹, which acknowledged harms to the local economy that needed to be balanced against the potential benefits. For example, the March 2019 OR, the detail of which was relied on in the October 2020 report for this issue, concluded that " the impacts of the proposal in respect of footpaths and impacts upon the local tourism industry would not result in such significant harm as to justify refusal of the planning application on those grounds alone".²⁶⁰
219. By contrast, Mr. Thistlethwaite, in providing evidence on the planning issues for WCM, disregarded this, and other harms identified by the Council, and suggested that substantial weight²⁶¹ be ascribed to each of three economic benefits: jobs; investment; and balance of payments.
220. SLACC called Ms Diski of the New Economics Foundation to show why moderate weight, rather than significant weight, should be attached to those benefits. Ms Diski is well qualified to advise on these matters, having a dual masters (MA and MSc) in international history from the University of Columbia, New York and the London School of Economics and Political Science.²⁶² Her background is in research and policy development and as a policy adviser in various government departments including the Cabinet Office and the Department for International Development.

²⁵⁶ SLACC/PB/1 § 9.17

²⁵⁷ CD4.1

²⁵⁸ CD4.3

²⁵⁹ CD4.5

²⁶⁰ CD4.1 March 2019 OR § 6.442

²⁶¹ WCM/ST1S § 1.15

²⁶² SLACC/RD1 § 1.4

221. In her Proof of Evidence,²⁶³ her Rebuttal and her evidence before the Inquiry, Ms Diski offered a reasoned and moderate challenge to the WCM case, saying it has been overstated.²⁶⁴ The Applicant's case has been presented by Mr Thistlethwaite and Mr Kirkbride, neither of whom have qualifications in this field. SLACC acknowledge that there would be some investment and new jobs, but these jobs have not been estimated robustly, and the benefits to existing local residents would be lower than is claimed by the Applicant.
222. SLACC also had the benefit of evidence from Professor Ekins, eminently qualified in economics, that the NERA report relied upon by WCM "should not be taken at face value".
223. Ms Diski also drew on recent reports by respected Cumbria organisations, the Cumbria Local Enterprise Partnership²⁶⁵ (LEP) and Cumbria Action for Sustainability ²⁶⁶ (CAFS), to confirm the current labour market difficulties referred to in the Council's March 2019 OR, and the positive prospects jobs for West Cumbria in an emerging sustainable economy .
224. CAFS is currently working with local authorities and community organisations including SLACC, in the Zero Carbon Cumbria Partnership²⁶⁷, to reduce Cumbria's carbon emissions to net zero by 2037 and develop a prosperous and sustainable county.
225. It is SLACC's case that the proposed mine would make only a limited contribution to the future prosperity of West Cumbria and Cumbria as a whole, and indeed is likely to hinder and misdirect the contributions of local educational establishments, and local young people, away from the common goal of a forward looking and sustainable economy.

²⁶³ SLACC/RD/1 § 7.1

²⁶⁴ SLACC/PE/3 § 5.8

²⁶⁵ CD 9.9 Local Skills Report (2021)

²⁶⁶ CD 9.10 The Potential for Green Jobs in Cumbria (2021)

²⁶⁷ CD 9.10 § Introduction

Effects on Employment and the Local and National Economy

226. Dealing first with the number of jobs on offer at the site, in contrast to Mr. Kirkbride, Ms Diski gave open and frank evidence, which benefitted from her experience as a senior researcher at a leading independent economic think tank. She fairly commented that there was “no clear methodology” regarding how the figure of “up to” 532 proposed employees had been reached.
227. Mr Kirkbride could not take the Inspector to any document that justified the figure given: the ‘factsheets’ and associated documents²⁶⁸ relied upon did not provide any methodology, and the report by Nera Consulting²⁶⁹ was agreed not to justify any speculation about employment figures. The ‘organogram’²⁷⁰ gave an organisational structure for how a mine with 532 employees might operate, but, as Ms. Diski put it: “doesn’t show how the numbers were arrived at.”
228. When pressed, Mr. Kirkbride responded that he “didn’t believe why there was any reason why [he] should have to disclose” the methodology or evidence behind WCM’s calculation of employment figures, despite agreeing that that “it is a core part of any development project to ensure there are accurate estimates of the number of staff positions required.”²⁷¹ He did not accept Ms. Diski’s suggestion that a Full-Time-Job Equivalent analysis (which she explained was the standard relevant analysis) could be deployed, but nor did he offer any alternative methodology.
229. His explanation was that the number of people was “driven” by the equipment on site, and acknowledged a need to undertake analysis as to the amount of machinery required. However he could not elaborate, but rather referred to WCM as a “sophisticated developer” with an experienced mining team with a good sense of how many employees would be needed. Coupled with his vague comparisons to other (allegedly similar) mines elsewhere, Mr. Kirkbride’s evidence on employment numbers boiled down to the proclamation: trust me, I’m a miner.

²⁶⁸ WCM/MAK/3, §2.2, ID9.1-5, and ID10.1-3

²⁶⁹ WCM/MAK/2 – Appendix 2

²⁷⁰ WCM/MAK/2 – Appendix 4

²⁷¹ WCM/MAK/3, §2.17

Absent any methodology behind the Applicant's claimed level of employment, Ms. Diski was entirely justified in concluding that it is hard to have any confidence in the claimed numbers, or benefits flowing from the same.

230. The proposed apprenticeship scheme also remain somewhat vague, and Ms. Diski questioned the wisdom of training the local youth in an industry which is to be rapidly phased out. That is particularly so given the limited transferrable skills provided by the work likely to be undertaken by apprentices involving "specific" competencies, and largely comprising shift deployment for "clearly defined and dedicated role[s]"²⁷² only.
231. Mr Kirkbride put a variety of arguments forward to support his case. He said that he knew of miners , originally from Cumbria who had expressed an interest in returning to take up jobs at the mine, and that best endeavours would be made to ensure that 80% of the jobs would be taken by local residents. Ms Diski however pointed out that the local pool of sufficiently experienced workers is necessarily small, given there were only 10 people involved in coal mining in Cumbria in 2018-19,²⁷³ 40 people involved in that industry as far back as 2001,²⁷⁴ and there were only 8 people employed in deep coal mining in the whole of the UK in December 2019.²⁷⁵
232. Relevant experience was stated to be required for at least 429 roles at the mine, and (unsurprisingly given the above statistics provided by Ms. Diski) of the first respondents to the labour survey within the ES, there were only 47 people with such experience.²⁷⁶ That number apparently rose to 147 of the 2,200 now surveyed²⁷⁷ however Mr. Kirkbride indicated this included respondents from all over the UK and even Australia. . Given that WCMs case is that the new jobs will bear on local unemployment, even if some of the miners moving to the areas to

²⁷² WCM/MAK/3, §2.8

²⁷³ SLACC/RD/2 – Appendix 1

²⁷⁴ SLACC/RD/2 – Appendix 3

²⁷⁵ SLACC/RD/2 – Appendix 2

²⁷⁶ CD1.86, p.23

²⁷⁷ WCM/MAK/3, §2.18

take up jobs at the mine once lived nearby, this could still predominantly bypass, and not benefit current residents.

233. Mr Kirkbride attempted to sidestep this problem by, for the first time in his oral evidence, claiming that 'relevant experience' did not equate to prior 'mining experience'. That was especially so given WCM is apparently in dialogue with HR to obtain skilled workers leaving Sellafield²⁷⁸ and based on the obviously specialised nature of work at the mine. Further, based on the paucity of local mining experience in the region as highlighted by Ms. Diski²⁷⁹, it is impossible that there would be sufficiently experienced personnel to even form a 'core' group of experienced employees in management roles. It follows that it is difficult to see how the the majority of the workforce at the mine could be sourced locally, and which supports SLACCs view that the level of benefit to the local community in employment terms has been exaggerated.
234. The wider local benefits offered by the proposed scheme are also limited. The claimed indirect and induced employment and economic benefits of the mine contained in the 'Nera Report'²⁸⁰ were confirmed to be based on information supplied by WCM contained within a financial model which has not been disclosed in redacted form or otherwise. How the model has been verified, and by who, is not available to the inquiry, and I therefore suggest that little weight can be attached to this evidence, or any statements by other WCM witnesses who rely on it.
235. Professor Ekins' conclusion within his Proof of Evidence was therefore fully justified: absent detail on the data fed into the financial model, "it would be unsound for the inquiry to take at face value the results of this model" and so "no faith can be put in the results."²⁸¹ That is especially so given the authors of the Nera Report apparently state the WCM financial model has not been verified at all.²⁸² Mr Kirkbride denied his financial model was a 'black box', stating it was "a

²⁷⁸ WCM/MAK/3, §2.33

²⁷⁹ SLACC/RD/2 – Appendices 1-3

²⁸⁰ WCM/MAK/2 – Appendix 1

²⁸¹ SLACC/PE/3. §5.8

²⁸² WCM/MAK/2 – Appendix 1, p. 57

very extensive excel spreadsheet,” but as is quite obvious, the complexity of the spreadsheet is no guarantee of the reliability of its assumptions or source data.,.

236. Mr. Kirkbride also conceded that the claimed ‘UK Economic Impacts’²⁸³, were entirely reliant on the unseen WCM financial model. Those benefits too are fairly characterised by Professor Ekins in his proof of evidence as “merely assertion.”²⁸⁴
237. A number of local initiatives were referenced in attempt to justify the claim that the proposed jobs at the mine would go to those in need of employment in the area. However, Mr. Kirkbride accepted that none of the initiatives mentioned specifically related to preparation for jobs at the mine. This did little to assuage Ms. Diski’s concern that WCM had provided no clear route for the long term unemployed into work for WCM. Only 16%²⁸⁵ of those originally surveyed by WCM as desiring a job at the mine were unemployed, and no clear plan has been provided by the Applicant as to how such groups would be targeted beyond being referred to general Local Authority programmes.
238. SLACC also takes account of the Councils own internal advice, that jobs at the mine are likely to have some disruptive impact on the local employment market . ‘Net’ employment benefit claimed in the local area can, SLACC suggests be afforded only some weight.. Mr. Kirkbride accepted some workers would leave their existing local jobs to work at the mine, and that there were a limited number of skilled workers in the local area.
239. Finally, Mr Kirkbride chose to characterise Green Jobs in the area as uncertain yet accepted there was an “aspiration and a requirement to see those Green Jobs come forward” as a result of the UK’s pursuit of emissions reductions targets and based on Cumbria’s own plans for a Net Zero Future.²⁸⁶
240. He was critical of the suggestion that employment at the mine would prevent people from taking up Green Jobs on the basis that such jobs are yet to be fully

²⁸³ WCM/MAK/, §§9.1-9.19

²⁸⁴ SLACC/PE/3, §5.7

²⁸⁵ CD1.86, §7.5.25

²⁸⁶ As discussed at SLACC/RD/1, §5.1-5.4

confirmed, however that response overlooked the fact that workforce and skills shortages have been identified as a “key barrier” to reducing carbon emissions and reducing carbon emissions in Cumbria,²⁸⁷ and the fact that the Cumbria Local Enterprise Partnership had specifically engaged with the Government’s green jobs agenda emphasising the need to identify and support the skills needed for transition.²⁸⁸

241. So stepping back, once the claimed extensive economic benefits are examined closely, it is plain that Mr Bedwell’s approach was justified.

THE PLANNING ANALYSIS

242. The starting point when considering an application for the extraction of coal is straightforward: paragraph 217 of the NPPF makes clear that “Planning permission should not be granted for the extraction of coal” unless the Inquiry can be satisfied about the matters contained in sub-paragraph a), or failing that, sub-paragraph b). There is accordingly an important presumption against the grant of planning permission for the extraction of coal; it occupies a distinctive position relative to other minerals more generally in the Framework.
243. Paragraph 211 of the NPPF, which sets out the benefits of mineral extraction generally and specifies that “great weight” should be given to those benefits, is specifically excluded when considering applications relating to the extraction of coal by virtue of Footnote 71, which provides that: “Except in relation to the extraction of coal, where the policy at paragraph 217 of this Framework applies”. The entirety of paragraph 211, including the considerations listed at sub-paragraphs a) to g) which apply to mineral extraction generally, is displaced in favour of paragraph 217 in relation to coal.
244. The Applicant appears to re-introduce the “great weight” in paragraph 211 or seek to negate the presumption against the grant of planning permission in 217 through reference to the definition of “mineral resources of local and national

²⁸⁷ CD9.10, §7(e)

²⁸⁸ CD9.9, p.19

importance” on pg 69 of the NPPF, which has been in the policy since 2012. As canvased in evidence with Mr Bedwell, this is not the correct approach. The changes in the NPPF in 2019 cannot be sidestepped by reference to the definition. The NPPF does not require the decision-maker, separately, to attribute significant weight to coal as a resource of local and national importance, and that was not the approach taken by the Secretary of State in the Highthorn decision.²⁸⁹

245. The Cumbria Minerals and Waste Local Plan provides at DC13 (Criteria for energy minerals):

“Planning applications for coal extraction will only be granted where: the proposal would not have any unacceptable social or environmental impacts; or, if not it can be made so by planning conditions or obligations; or, if not it provides national, local or community benefits which clearly outweigh the likely impacts to justify the grant of planning permission.”

246. Policy DC13 echoes NPPF paragraph 217 but goes beyond it, requiring consideration of both the social and the environmental impacts of climate change. Mr Thistlethwaite accepted that this policy is fully consistent with the NPPF. It is up to date and should be given full weight.

247. In addition to the environmental impacts, those social impacts, such as the risk of the development becoming a stranded asset, the impact on the community of the intensified effects of climate change, the loss of amenity and potential loss of tourism, must be taken into account when deciding whether or not the proposal would have any unacceptable social or environmental impacts.

248. It is important to emphasise that the profound environmental impacts of climate change undoubtedly have implications amounting to social impacts: for example, the increased rainfall and flooding associated with the worsening of climate change impact the financial and mental wellbeing of communities as well as changing the physical environment.

249. Mr Bedwell gave reasoned and measured evidence. Where he had taken into account matters which, thorough cross-examination, he re-evaluated, he very

²⁸⁹ CD 6 pg 15 §81ff.

fairly stepped back from them. However, he explained why those changes did not affect his overall analysis. And to be fair, the elements from which he stepped back not at the centre of the Secretary of State's determination .

250. Mr Bedwell set out his assessment under the first part of the test under policy DC13 and paragraph 217 of the NPPF, which is the confirmed impacts and resultant harm arising from the following matters cannot be resolved through the imposition of conditional controls:
- a. The environmental and social harm that would be caused by the Scheme in undermining the Net-Zero obligation in the Climate Change Act 2008, including at international, national and local level;
 - b. The environmental harm arising from the loss of deterioration of irreplaceable habitat within ancient woodland at Bellhouse Gill Wood and Roskapark Wood.
 - c. The environmental harm to the setting of Scalegill Hall and its outbuildings (Grade II listed).
 - d. The environmental landscape harm to the Pow Beck Valley that would arise from the proposed RLF.
 - e. The environmental and social harm to the St Bees Heritage Coast that would arise from the Proposed Mine on the Marchon Site.
 - f. The social harm that would arise from harm to amenity and to users of the Coast to Coast Walk, the Coastal Path and other public rights of way and promoted walks, including those mentioned in the St Bees Parish Circular Walk 7 – Wood Lane & Stanley Pond.
251. In these circumstances, the Application Proposals are not environmentally or socially acceptable, and that the first stage test of Policy DC13 and the NPPF paragraph 217 are not met.
252. Turning to the second stage test, ie whether the proposed development provides national, local or community benefits which clearly outweigh its likely impacts (taking all relevant matters into account, including any residual environmental impacts), Mr Bedwell sets out the impacts of the harms and the benefits, including

giving moderate weight to the benefit of restoration of the former Mainband Colliery site and to the delivery of jobs.

253. Mr Bedwell concludes that the proposed development fail to comply with Development Plan policies DC13 and SP15 of the CMWLP; and ENV1, ENV2, ENV3, ENV4 ENV5 and ER10 of the Copeland Local Plan. He sets out why material considerations do not indicate that planning permission should be given despite this lack of compliance with the development plan; rather there are a number of material considerations weighing against the grant of planning permission.

CONCLUSION

254. The Applicant's case is based on three central fallacies:
- a. The 'net zero mine' fallacy, in which a mine that will, in its construction and operation, emit methane into the atmosphere for years is claimed to be "net zero" because of a methane capture system shoe-horned into the scheme in the past few months and an offsetting scheme rejected as improper by the offsetters that Applicant alighted on using, again in the past few months; and
 - b. The perfect substitution fallacy, in which the 220 million tonnes of CO₂e that the use of WCM's coal over the course of the lifetime of the scheme²⁹⁰ will cause become a positive climate change impact, because they will substitute the equivalent metallurgical coal currently being used in steel manufacturing, initially in the UK and Europe, and since 10 August on WCM's extended case, even if used in Japan or India or China; an analysis which does not hold if even 1% of the WCM coal is additional; and
 - c. The continuing need fallacy, where technologies that are surging are ignored in favour of a world-view where steel production remains largely dependent on fossil fuels until beyond 2050 and new coal mines are therefore justified, despite the IEA's very recent Net Zero report.

²⁹⁰ SLACC/MG/1 §6.7.

255. All this against the well evidenced urgent need to address climate change, with the action taken in the next decade being determinative as to whether the world remains on track to keep global warming below 1.5°C. “It is time for us to listen to the warnings of the scientists – and look at Covid, if you want an example of gloomy scientists being proved right – and to understand who we are and what we are doing.”²⁹¹
256. Accordingly, and for the reasons set out above, SLACC ask that the Inspector recommend to the Secretary of State that he refuse permission for the proposed development.

1 October 2021

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²⁹¹ ID43 pg 2.