

## Written evidence submitted by Anglo American plc (PEG0248)

Dear Committee Members

### **Subject: Business, Energy and Industrial Strategy Committee's Call for Evidence on Post-Pandemic Growth**

Anglo American is pleased to enclose a submission to the Committee's Call for Evidence on Post-Pandemic Economic Growth.

Anglo American is a UK headquartered, FTSE 100 listed global mining company with a product portfolio that spans platinum group metals, copper, diamonds (through De Beers), iron ore, crop nutrients and several other minerals. Our portfolio of world-class assets produces many of the high-quality metals and minerals needed to enable a cleaner, greener and more sustainable future.

We operate around the world, predominantly in Southern Africa, South America and Australia, and have recently substantially expanded our operational footprint in the UK. In March 2020 we added the Woodsmith polyhalite fertiliser project to our portfolio through the acquisition of Sirius Minerals Plc. Situated in North Yorkshire, Woodsmith is the world's largest known high-grade polyhalite deposit, a low carbon fertiliser.

The Woodsmith Project – now part of our Crop Nutrients business – is a good fit for Anglo American. The polyhalite it will produce will provide an organic, low-carbon fertiliser to support the needs of the world's growing population at a time when land availability for crop growth is diminishing. Anglo American's 85% owned De Beers business also includes world-leading supermaterials research and production through Element Six, headquartered in Oxfordshire. Element Six harnesses the unique properties of synthetic diamonds and tungsten carbide to deliver supermaterials that improve the performance and reliability of industrial tools and technology.

It is through the prism of our UK operations that we submit evidence to the Committee's inquiry.

Our submission will principally focus on innovation, skills, the expansion of the hydrogen economy and the development of the Woodsmith Project. We envisage the project will require more than US\$3 billion of investment to bring it to fruition and therefore attract investment to the North Yorkshire and Tees Valley region; it will promote and fund world-leading research and development in the agri-science sector; it will have clustering effects that will stimulate industrial growth in the North East; it will be a significant exporter in the region; and it will drive productivity gains for employees and in linked industries.

We have signposted where our submission addresses the questions set out in the Committee's terms of reference.

The devastating impact of Covid-19 has reinforced the importance of close collaboration between governments, regulators and businesses in responding to unprecedented global challenges. Anglo American is committed to playing its part, working with all stakeholders to help secure the UK's recovery from the pandemic.

We look forward to engaging with the BEIS Select Committee and we hope you find this a useful contribution. We would be more than happy to discuss this further with the Committee and staff if helpful.

Yours sincerely

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**FORMAL SUBMISSION TO COMMONS BUSINESS, ENERGY AND INDUSTRIAL STRATEGY COMMITTEE CALL FOR EVIDENCE ON POST-PANDEMIC ECONOMIC GROWTH:**

*We consider that the sections below answer the following questions from the Committee's Call for Evidence:*

**How can the Government best retain key skills and reskill and upskill the UK workforce to support the recovery and sustainable growth?**

To maintain our position as a leading mining company, we need to develop new skills among our existing employees and bring new kinds of talent into our business. We are continuing to evolve our approach to talent acquisition and retention. This includes improving our recruitment capability as we aim to establish a consistent global recruitment process that can attract, source and anticipate the skills that the business will need in the future.

In the UK, Anglo American has plans to contribute to the skills and apprenticeships agenda. Our vision is to create shared, sustainable prosperity for our host communities, supported by excellent education and training.

We have an ambitious programme of skills development across our business. Relevant to the call for evidence, our focus around the Woodsmith Project is on increasing the supply of people with science, technology, engineering and maths (STEM) related skills and, in parallel, ensuring that new opportunities benefit those from under-represented groups and support social mobility.

Our role as a founding funder of "The Code", which is a commitment by organisations to work towards common goals to increase the diversity and number of young people pursuing engineering careers, underlines our intention to work in partnership to tackle this crucial issue. In practical terms we are funding a ten-year £1 million programme in Tees Valley and North Yorkshire to promote STEM careers provision over the next ten years.

Apprenticeships are an important part of our approach, together with re-skilling adults with transferable skills. The Woodsmith project has already delivered 30 apprenticeship and placement opportunities and more opportunities will be created at all levels, including degree level. Our multi-skilled advanced engineering apprenticeship programme will create 50 new long-term opportunities on the Woodsmith project over the next four years.

We are also in the process of developing an undergraduate programme with Coventry University Scarborough, and in addition will train at least 300 adults with transferable skills in preparation for operations starting at Woodsmith.

Our partnership approach includes funding of £85,000 for services delivered by local councils in the area that provide training and employment support for people in the boroughs of Scarborough and Redcar and Cleveland.

Building the skills pipeline through engagement with schools is a key part of our approach. Our education outreach team at Woodsmith works with schools, including schools in disadvantaged neighbourhoods, to increase young people's awareness of future opportunities that are open to them, raise their confidence and aspirations, and equip them with the skills to ready them for their future careers.

Anglo American requests that the Government works with and supports existing partnership programmes, such as The Code, to build the talent base for industry and engineering, with a strong foundation in STEM subjects.

**How should regional and local government in England, (including the role of powerhouses, LEPs and growth hubs, mayoralties, and councils) be reformed and better equipped to deliver growth locally?**

The development of a multi-decade project such as Woodsmith provides an opportunity to deliver long-term, sustainable economic opportunities. Anglo American's approach to this is called Collaborative Regional Development (CRD) and recognises that achieving such sustainable growth is too complex and too large a task to be solved by any one institution alone, but that it needs to be delivered through collaboration and partnership between the public and private sectors.

Our aim is to act as a facilitator and catalyst for change in the regions that host our operations. We form partnerships with other stakeholders to jointly identify and then deliver long-term social and economic development programmes. We recognise that the lead role in socio-economic development is played by local government and development agencies. As a consequence, we seek to support, enhance and complement the work of existing government-led agencies, whilst also bringing in other private sector and civil society organisations.

This approach focuses on the whole of the Anglo American operation and seeks to leverage our value chains and expertise within our business to support sustainable development interventions. To put this in context, in 2019 our global supply chain expenditure amounted to approximately US\$11 billion. Beyond the value chain, CRD includes local training and recruitment, skills development, supporting local government capacity, enterprise development and support, synergies from the mine infrastructure and social investment.

Consequently, partnerships with the local authorities and planning organisations are crucial. In relation to the Woodsmith Project, we see close alignment between elements of the Tees Value Combined Authority's strategic economic plan and our own approach, specifically:

1. Business growth: We expect Woodsmith to inject hundreds of millions of pounds into the local and regional economies through the supply chain, as well as generating jobs and supporting regional economic growth for many decades, based on the anticipated life of the mine.
2. Research, development, innovation and energy: Woodsmith leads and funds a global research programme into agri-science and mining technology advancements.
3. Education, employment and skills: Woodsmith has a comprehensive skills and training package for employees, including targeted support for local people.
4. Place: Woodsmith is a part of Anglo American, a leading mining company with global reach. The investment in the Tees Valley will support the brand of Wilton and Teesside as an international hub for chemical processing and export industries.

Woodsmith's polyhalite processing activities will be adjacent to the South Tees Development Corporation's masterplan area and is aligned with key elements of the masterplan strategy, including:

1. Aligning with the Government's Industrial Strategy: We expect Woodsmith to be a highly productive, high-export project with positive impact on the local and regional economies
2. Prioritising uses connected with advanced manufacturing and advanced and new technologies: Woodsmith is at the forefront of agri-science and mining technology research.
3. Promoting and supporting development uses aligned with a low carbon, circular economy with reduced energy costs and waste minimisation. Woodsmith will be part of a supply chain that will promote a circular economy: supporting the sustainability of local suppliers at Wilton

and regionally, reducing waste and promoting highly productive and efficient growth. Moreover, POLY4 (our multinutrient fertiliser product made from polyhalite) is a low carbon product.

4. Focusing on highly-skilled employment generating opportunities: Woodsmith will have highly skilled workers, with training opportunities, and wages above local and national averages.

5. Contributing to education and skills development. Woodsmith has a comprehensive skills and training package for employees, including targeted support for local people.

The capacity, capability and ability of local government to engage in long-term strategic socio-economic development activity and follow through in the implementation of that activity is key, we believe, to our own success and to the success of the regions in which we operate.

**What opportunities does this provide to reset the economy to drive forward progress on broader Government priorities, including (but not limited to) Net Zero, the UK outside of the EU and the 'levelling up' agenda?**

*Net Zero*

Anglo American is committed to being part of the global response to climate change. Mining has a critical role to play in providing the metals and minerals needed for a low-carbon world, but mining is also a significant source of carbon emissions. We aim to change that and have set ourselves the target of achieving operational carbon neutrality across our whole portfolio by 2040, with eight of our sites carbon neutral by 2030. But we also have a role to play beyond our own operations.

As one of the world's leading mining companies and one of the world's largest producers of platinum, Anglo American has an interest in the future of hydrogen technologies as a powerful contributor to the effort to reach net zero by 2050.

Platinum is a vital component in fuel cell technology that can be used in hydrogen-powered vehicles (rail, road, maritime), the production of green hydrogen via electrolysis, or energy storage. The metal acts as a catalyst in the chemical process that converts hydrogen into electricity, with the only by-product being water.

Anglo American believes strongly in the potential of the "Hydrogen Economy", which can deliver significant decarbonisation of the UK's transport sector and beyond. As such, we are currently involved in a range of initiatives to facilitate nascent ethical hydrogen value chains. We invest both directly in venture-focused research and start-up companies that develop new hydrogen and fuel cell products in addition to our Anglo American founded venture capital fund, AP Ventures. Anglo American and AP Ventures investments today include sector-enabling companies like Hydrogenious, Ballard, Alteryx and United Hydrogen.

More broadly, domestically, we are active executive members of the UK Hydrogen and Fuel Cell Association, H2 Mobility and have co-funded the rollout of hydrogen refuelling stations in the UK under the OLEV Hydrogen for Transport Programme. Furthermore, we have recently brought industry partners together to form the Aggregated H2 Freight Consortium (AHFC), a partnership established to understand what is required to facilitate commercial volumes of hydrogen fuel cell powered HGVs to the UK, including considering the development of 'hydrogen freight corridors' on routes of heavy road freight use.

Most importantly, Anglo American is also facilitating the introduction of hydrogen across our own operations. We are part of the recently announced Green Hydrogen Consortium, made up of representatives from the mining sector, who are seeking to utilise green hydrogen to decarbonise their global operations. In addition, we are currently piloting the retrofitting of a mine haul truck to enable it to run on hydrogen instead of diesel. This forms part of a project

where we analysed our mine site power requirements and applied a unique decision process on how we look at the integration of renewable energy systems into mines. The haul truck use case is very compelling from an economic, environmental and technical perspective. It will also allow us to more easily expand the use of hydrogen into other parts of our operations once established.

Below are the key recommendations as part of our overarching call for greater recognition and support for hydrogen technology.

### **1. Greater support for hydrogen technology**

The Government should publish a fully-fledged hydrogen strategy to underpin current disparate support schemes and drive the strategic development of the UK's hydrogen sector, including:

- The development of a clear roadmap for developing low-carbon hydrogen use, production and infrastructure for distribution, with a commitment to ensuring the wide-ranging applicability of hydrogen technology is fully maximised, including in the transport sector.
- The creation of a cross-departmental team (Department for Transport, Department for Business, Energy and Industrial Strategy, HM Treasury and Ministry of Housing and Local Communities) to coordinate its approach to hydrogen – spanning supply, storage and transport.
- The formation of a plan for the urgent decarbonisation of hard-to-abate areas like heavy transport and maritime.

### **2. A role for hydrogen technology in the transport sector**

With current policy support mechanisms more focused towards BEV related activity, there is a risk that the Government will fail to realise the significant benefits delivered by hydrogen powered mobility solutions, which can complement, rather than compete, with battery electric modes of transport, and in some cases offer a more practical and cost-effective solution (especially in the heavy duty segment). Our recommendations include:

- Government to make a statement that clearly and explicitly illustrates the role for hydrogen and fuel cells in the future energy mix for the transport sector.
- Government to honour what it calls a technology neutral approach that ensures hydrogen is not put at a disadvantage as a result of its policies related to low-carbon transport technology.
- Government to commit to an investment fund for fuel cell and electrolysis technologies, similar to the Faraday battery challenge.
- 2030 targets should be established for the number of hydrogen-fuelled vehicles across different modes, and the associated infrastructure, which should form part of the wider Transport Decarbonisation Plan.
- Government support for hydrogen vehicles and infrastructure should move away from one-off competition-based support to a stable and ongoing subsidy support environment.
- Government should establish a cross-departmental team, which includes representatives of industry and local government, to look at decarbonising transport. Consideration should also be given to working groups for particular modes of transportation.
- Government should proactively support the development of fuel cell technology, by investing in research and providing financial support.
- Government should finance both hydrogen refuelling and battery recharging points to allow such technology to become commercially viable, reap the benefits of each technology respectively and leverage their full decarbonisation potential.
- Government should continue to engage with the Aggregated H2 Freight Consortium (AHFC) to understand the parameters needed to facilitate hydrogen-based road freight,

including updating relevant legislative and regulatory frameworks and removing roadblocks in terms of legacy regulations.

- Government can accelerate the adoption of hydrogen HGVs by supporting trials that will accelerate understanding, development and rollout, the provision of adequate hydrogen stations and providing incentives for business to invest in ultra-low emission HGVs, ideally through a 'freight corridor' concept initially.

#### *Contributing to the levelling up agenda*

The Woodsmith Project is the North's largest private investment with a total capital investment (spent and planned) of £3.2bn – equivalent to 10% of the total Gross Fixed Capital Formation in the Yorkshire and Humber and North East of England in 2016.

Woodsmith has the potential to extract and derive value from POLY4 (the trademarked name for Woodsmith's polyhalite fertiliser output) for several decades. Offtake agreements are already in place with well-established counterparties which would accommodate production of more than 10 million tonnes per year. Substantial construction expenditure means that direct, indirect and induced employment effects are significant. At peak construction up to 1,700 jobs are anticipated to be created, with 1,000 direct long-term jobs for highly skilled employees and about 1,500 more in the supply chain.

By significantly increasing economic output, boosting and empowering regional success and skills development – including through Collaborative Regional Development – increasing exports, driving productivity and reducing the trade deficit, Woodsmith is an exemplary project for supporting the development of a region where productivity and wages lag below national averages, and which includes 30 neighbourhoods that fall within the 10% most deprived in the UK. Woodsmith has the potential to generate export-led growth, jobs and economic value, for this region and the wider UK for the long term.

#### *Jobs and growth*

About two-thirds of the Woodsmith team have been recruited from the local area (despite the specialist nature of much of the work) and £100 million spent on businesses in Tees Valley and North Yorkshire.

Jobs created by Woodsmith will have average salaries double the North East, Yorkshire and Humber average.

We are spending US\$300 million in developing the Woodsmith project this year and more than US\$3 billion will be required to complete the construction and begin production. Domestically sourced inputs are prioritised wherever possible, supporting supply chains in starch, wax, utilities and machinery. This spending will have the potential to strengthen the existing industrial cluster in Redcar and attract new, complementary investment. We expect new suppliers to come forward and, potentially, new facilities will be established to process the extracted material, capturing economic value that would otherwise be lost overseas. In particular, the Materials Handling Facility (MHF) at Wilton International could play a very significant role in supporting local growth and success and will drive clustering benefits in the UK economy.

#### **What opportunities exist for the UK economy post Brexit and the pandemic for export growth?**

Woodsmith has the potential to make the UK one of the world's leading producers of multi-nutrient fertilisers, with a carbon footprint a small fraction of other fertilisers (e.g. SOP, MOP).

The Company's global agronomy programme, together with direct engagement with customers over the last five years, has confirmed the significant market opportunity for bulk high quality multi-nutrient fertilisers like POLY4.

Sales contracts have been signed with well-established counterparties in Europe, South-East Asia, USA, Brazil, China, Central and South America – helping to place the UK at the forefront of the move towards more sustainable agricultural practices.

Trading relationships with both established and new trading partners will generate export-led growth for the UK economy at a vital time.

Anglo American would like to see the prioritisation of fertilisers within trade agreements negotiated with all partners considering implications related both to tariffs and non-tariff barriers.

#### *Global leadership in sustainable agriculture*

The Industrial Strategy identifies the potential for the UK to take a leading role in the global move towards high efficiency agriculture. Woodsmith can make a major contribution towards this.

The world's population is set to increase by a third by 2050 and the demand for food production is forecast to increase by 60%. At the same time, the land available for farming is decreasing and soils have widespread deficiencies in the nutrients that plants need to grow. Food production rates are already struggling to keep up, yet the global agricultural system is required to produce more in the future.

Our ongoing R&D programme has to date involved over 556 trials, on 60 crops, in 30 countries. Polyhalite contains four of the six macronutrients that plants need to grow. It has sustainable characteristics and agronomic benefits. The results of this work demonstrate consistently that POLY4 can help increase crop yield and quality through balanced fertilisation.

POLY4 is certified for organic use and has no requirement for chemical processing. Furthermore, our studies have shown that polyhalite helps to rebalance and reconstruct soil structures. Good nutrient stewardship – ensuring nutrients are applied at the correct rate, time and place – is a key element of our approach and we are working with a range of stakeholders to promote sustainable agricultural methods and policies in key agricultural markets across the world.

Our scientific approach to more efficient agricultural practice has been carried out with international partners and leading UK institutions such as the Food and Environment Research Agency and the universities of York, Warwick and Aberdeen.

Woodsmith is a leading example of the Government's aim to become the most innovative economy in the world. It has been decades since a completely new large-scale product entered the fertiliser market but POLY4, developed using British-based research and development, has the ability to reshape the global fertiliser market. This will not only generate substantial economic benefits but bring us a step closer to a more sustainable agri-food system globally.

We request continued support from DIT, FCDO and others to promote the benefits of Poly4 as a product to help increase global agricultural yields sustainably.

*September 2020*