

## Written evidence submitted by the Critical Minerals Association

### Overview:

The Critical Minerals Association (CMA) is the United Kingdom's leading industry association for the nation's critical mineral companies, academics, and industry specialists from upstream mining to beneficiation.

As an association with 17 of the UK's leading critical minerals companies we would be honoured to give more complete evidence orally if the Chairman would find this useful. We certainly feel that the information we can provide, plus the views of the industry we represent are central to this inquiry.

The Critical Mineral Association was launched in March 2020. Despite the limitations caused by Covid19 we have grown into a highly representative body of the UK's critical minerals sector. The CMA provides the Secretariat to the All-Party Parliamentary Group for Critical Minerals, has provided training to over 30 parliamentary staffers and civil servants alongside Satarla, and is engaged with foreign governments to help develop secure supply chains of critical minerals for the UK.

Our role is to ensure that the complexity of the industry, the necessity for it, and the potential it has to deliver jobs and growth across the UK, is understood and championed.

### What contribution could battery electric vehicles make to achieving net zero by 2050?

Electric vehicles will play an essential role in delivering a green economy by 2050.

The average petroleum car releases 4.6 metric tons of CO<sub>2</sub> per year (assuming 8,887 grams of CO<sub>2</sub> is released per gallon of gasoline burned<sup>1</sup>). There are approximately 31.9 million cars registered in the UK as of September 2020. Therefore the potential CO<sub>2</sub> emissions from petroleum vehicles is 146,740,000,000,000 metric tonnes of CO<sub>2</sub> per year. Phasing out petroleum vehicles for less polluting electric vehicles has a huge impact on the United Kingdom's ability to meet its Net Zero ambitions by 2050.

However, it is unlikely that the production of an electric vehicle will be Net Zero by 2050. Critics of electric vehicles highlight the notable carbon footprint of extracting and processing the critical minerals necessary for electric vehicles.

Due to the embedded carbon footprint of producing electric vehicles, it is suggested that in 2021 it will take upwards of seven years of usage for an electric vehicle to meet parity of an Internal Combustion Engine vehicle. With the right incentives and Government strategy, this can be changed. Electric vehicles are key to reducing CO<sub>2</sub> emissions, and if their production methods are developed around low carbon suppliers, their embedded carbon footprint can be dramatically decreased.

The UK can, and should consider the carbon footprint of extracting and processing the minerals needed for electric vehicle batteries. The UK could work to reduce this carbon footprint in a number of ways.

If the UK is able to domesticate as much of the supply chain as possible, the carbon footprint of the global transporting of critical minerals will be reduced.

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<sup>1</sup> <https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle>

- a) The UK's growing renewable energy sector, and changing energy consumption methods in industry, will reduce the carbon footprint associated with building an electric vehicle.
- b) The UK can support its domestic mining industry in this regard. For instance, Cornish Lithium, one of the founding members of the CMA is looking to extract lithium in the UK from geothermal brine, The company would be able to generate geothermal energy as it extracts lithium to be used in domestic battery development.

In addition, electric vehicles paired with domestic smart power packs will enable stabilisation of the electricity grid<sup>2</sup>. Vehicle to Grid applications allow electric vehicles to charge when grid energy demands are low, therefore filling the demand valleys and reducing energy demand spikes. While in its infancy, this technology will help stabilise domestic energy demands that in turn reduce burden on power stations and as such improve CO2 emissions. The public can add to this potential technology by adding domestic green energy solutions such as solar panels to their energy systems. However, electric vehicles and their supportive technology are in their infancy. Due to the embedded carbon footprint of producing electric vehicles, it is suggested that in 2021 it will take upwards of seven years of usage for an electric vehicle to meet parity of an Internal Combustion Engine vehicle. With the right incentives and Government strategy, this can be changed. Electric vehicles are key to reducing CO2 emissions, and if their production methods are developed around low carbon suppliers, their embedded carbon footprint can be dramatically decreased.

At the CMA, we recognise the role that critical minerals and their production play in the current carbon footprint of electric vehicles and we are working with the sector towards Net Zero ambitions. If, however the UK fails to develop a critical minerals supply chain, our ability to shape the carbon footprint of electric vehicles is taken out of our hands. If the UK fails to consider this supply chain, and manufacturers move overseas, there will always be a considerable carbon footprint as producers ship electric vehicles into the UK.

**How well is Government policy aligned with high-level commitment for growth of battery electric vehicles to support its net zero ambition?**

"If the Government doesn't work with the sector now so it is ready to meet the challenges ahead, then it will watch it drain away as global corporations opt to invest overseas, where governments do understand the value of investment." – Isobel Sheldon, Britishvolt

The Critical Minerals Association and its members welcomed the United Kingdom's Ten-Point plan for a Green Industrial Revolution. The document outlines objectives all of us want to see become a reality however it does not provide a plan or strategy for achieving its ambitions.

To deliver a Net Zero society by 2050 the Government needs to understand the entire supply chain and not just the downstream Original Equipment Manufacturers (OEMs). A proper strategy for the entire supply chain from mine to component manufacture needs to be clearly defined for the critical mineral industry. If not, the nations which are outwardly supporting and developing their critical mineral supply chains (including multi-billion investment), will gain access to global critical mineral supply ahead of us and reduce the UK's capacity to deliver the Ten Point plan. This will leave the UK reliant on buying components and finished products from abroad; predominately the EU (which would contradict the Government's Brexit objectives).

The Ten Point Plan rightly highlights the importance of the car manufacturing sector and sets out a £2.8 billion support package specifically for this sector<sup>3</sup>. Some estimate that car manufacturing and

<sup>2</sup> <https://en.wikipedia.org/wiki/Vehicle-to-grid#Applications>

companies covered in its multiplier effect employ between 500,000 – 800,000 people within the UK. It is right that protecting these jobs is a government priority.

The Ten Point plan also points out that the Government has committed:

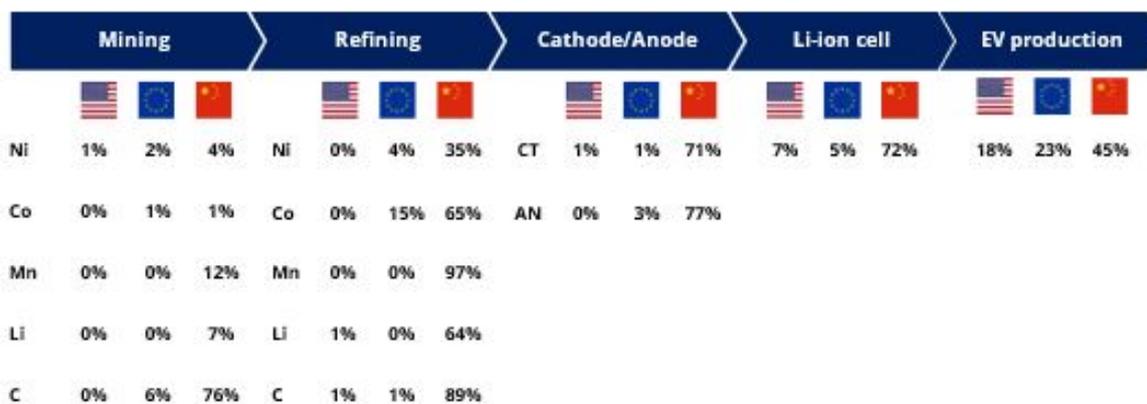
“£1bn to support the electrification of UK vehicles and their supply chains, including developing gigafactories in the UK to produce the batteries at scale.”

While this investment into the supply chain is welcome, this statement also shows a lack of understanding of the financial demands for the electric vehicle sector let alone its supply chains. The investment requirement for a single Gigafactory can be around £2bn. The Government’s own Faraday Battery Challenge estimates the UK will require eight gigafactories to meet its industrial demands.

Every Gigafactory will require a dedicated supply chain of critical minerals and technology metals for their battery development:

- Lithium (Li) – 6.86Kg/battery (average)
- Manganese (Mn) – 1Kg/battery (average)
- Cobalt (Co) – 3.4kg/battery (average)
- Nickel (Ni) – 46.75Kg/battery (average)
- Graphite (C) – 8.73kg/battery (average)

These necessary minerals are controlled by China, particularly through the refining process allowing China to dominate the production of battery components and global electric vehicle production. This is best demonstrated by the statistics provided by Roskill:



\* Statistics from Roskill

<sup>3</sup>[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/936567/10\\_POINT\\_PLAN\\_BOOKLET.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf)



China's dominance of the battery material supply chain midstream means that it is able to race ahead of the world in the development of gigafactories and this is because China's leadership has been developing and supporting this strategy for decades.

China has been following a strategy to secure a monopolistic position of critical and strategic minerals since the creation of the State Reserve Bureau was created in the 1950s. Their specific ambition to become the global leaders in electric vehicle, semi-conductors and other high-tech industries was founded upon the 2001 'Go Out' policy that set objectives for global strategic mineral exploration.

In light of China's dominance of the critical mineral supply chain for electric vehicle battery components and rare earths, and with an understanding that market forces are not enough to overcome a monopoly, many partner and competitor nations with Net Zero ambitions are investing in these supply chains. They are investing significantly more and significantly further up the supply chain than the UK.

The Ten Point plan is an admirable set of objectives, but it lacks any real strategy or plan to deliver it. Until the Government is able to convey their electric vehicle battery supply chain strategy the UK will lag behind regional and global competitors.

#### **Are the UK supply chain opportunities around supply of batteries and power electronics, machines and drive supply chain clear?**

- "There are several key things that the UK needs to do to become a leader in EV batteries," "Firstly, we have to ensure that the UK has a world-class supply chain to support battery manufacturing, in order that we don't have to rely on imported materials." –Orral Nadjari, CEO Britishvolt

Without clear government leadership there is a lack of clarity on the supply chain opportunities within the UK. Driving the Electric Revolution (DER) as part of the UKRI has played a crucial role in streamlining the UK's offering in these sectors. The DER has an investment pool of £80 million and has put this to good use across the entire power electronics sector. The CMA supports and welcomes the work of the DER but also acknowledges that this is not enough finance to invest in companies or research projects at a level needed to take them through to commercialisation. The CMA would support more finance or Public Private Partnership funds being made available to the DER and its sister organisations to ensure investments at scale can be made consistently into TRL 5 and up.

Companies such as Mkango Resources, E-Tech Resources or Pensana are well placed to provide the rare earths necessary for industrial magnets alongside Less Common Metals, a regional leader in industrial magnet metals. With companies like these and others listed on AIM/LSE, the UK has the potential to take the lead in this space against regional competitors. 60% of the world's electricity goes through motors; it would be a shame if the UK lost its potential area of regional competitive advantage due to a lack of a comprehensive industrial strategy.

#### **What natural advantages in terms of access to raw materials, renewable energy supply, technological readiness, IP or other competitive advantage does the UK have to encourage development of battery manufacture in the UK?**

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<sup>4</sup> [https://faraday.ac.uk/wp-content/uploads/2019/08/Faraday\\_Insights-2\\_FINAL.pdf](https://faraday.ac.uk/wp-content/uploads/2019/08/Faraday_Insights-2_FINAL.pdf)

Critical minerals are global in nature, and while many of the world's mining firms are listed on AIM or the FTSE250/FTSE100, their actions are global as you cannot move the resource until it is extracted from the ground. Until the necessary critical minerals are brought into the UK, the UK government and its downstream companies have limited influence over the supply chain. Hostile jurisdictions, poor ESG compliance, lack of infrastructure, poor or infrequent energy supply, country risk and host nation debt are all influencers on the first and second stages of the critical mineral supply chain.

The UK is a global leader in mining finance. The London Stock Exchange (LSE), and the junior Alternative Investment Market, accounted for over 25% of the mining industry's total financing of \$12.9 billion in the three months to end-September (the TSX accounted for 23%), according to S&P Global Market Intelligence<sup>5</sup>. The UK government needs to incentivise investment into strengthening the UK supply chain through increased access to finance for domestic and international operations.

As indicated earlier the electric vehicle battery supply chain mid-stream is dominated by China, meaning that the UK, like nearly all other nations is dependent on Chinese good will. In December 2020 the Chinese Government passed legislation allowing for a ban on exports of strategic minerals and hardened their position on critical mineral supplies adding a diplomatic weight to their value.

- China's top legislature passed a law on export control, allowing the government to ban exports of strategic materials and advanced technology to specific foreign companies on its equivalent of the U.S. Department of Commerce's Entity List.
- "China may take countermeasures against any country or region that abuses export-control measures and poses a threat to China's national security and interests, according to the law," the official Xinhua News Agency reported.

The diagram below demonstrates China's control of the sector and highlights how far the UK government needs to move to secure a supply chain that in turn reduces downstream OEMs risk of setting up in the UK:

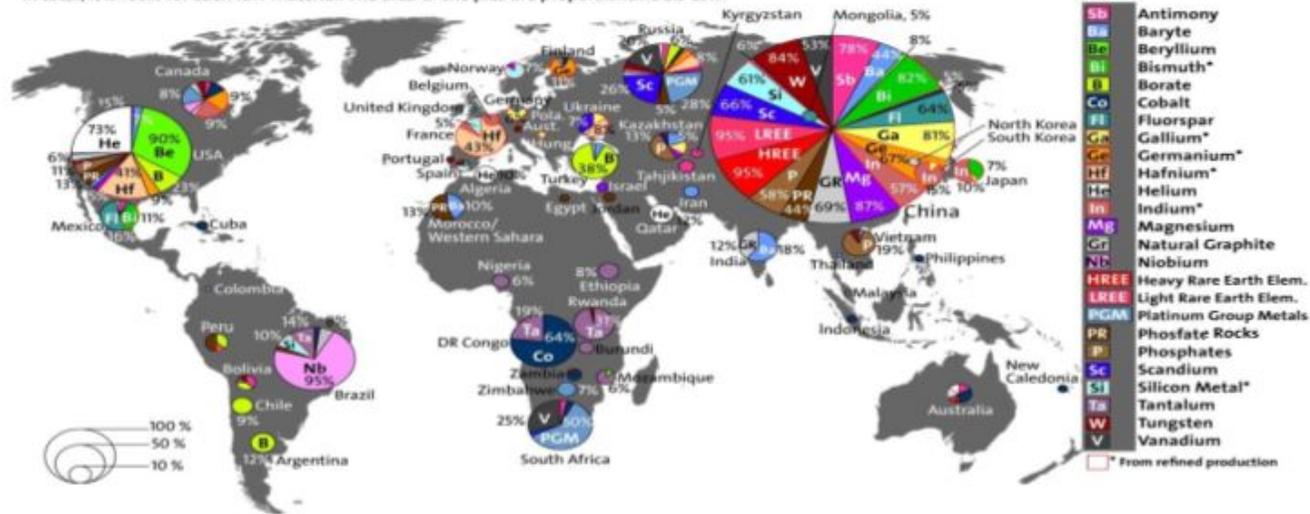
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<sup>5</sup> <https://www.mining.com/the-view-from-england-brexit-threat-to-londons-finance-sector/>

# Global Situation – China’s Dominance

## Global Supply of EU Critical Minerals and Metals

The pie charts show the percent distribution of the production of critical metals and minerals. In total, it is 100% for each raw material. The area of the pies are proportional. SGU 2017.



To be internationally competitive, the UK government must work with British critical mineral companies to provide them with the support needed to be in a position to supply materials within the next five years to the UK. This means providing both diplomatic and financial support well above what is available at the moment. Otherwise, many British firms, while being headquartered here, will choose to send their offtake elsewhere; wherever there is a buyer. After all, this is a global industry.

Domestically the UK does have a growing ability to deliver some of the critical minerals needed for the electric vehicle industry. The South West has a plethora of businesses from Cornwall Resources, Cornish Metals and Cornish Lithium to Tungsten West. Dalradian Gold in Northern Ireland, have copper reserves that could be used in the sector. According to Rob Bowell at SRK Consulting, 'The lithium grades reported from the deep geothermal waters at United Downs (Cornish Lithium) are globally significant.'<sup>6</sup>

The largest choke point of the electric vehicle battery supply chain is in the midstream, where China dominates globally. China controls 80% of the world's electric vehicle battery raw material refining, meaning that the majority of electric vehicles component manufacturers are located in or around China<sup>7</sup>. The UK should be investing in refining and specification/beneficiation processes within its shores. Not only would this provide a guaranteed offtake for British critical mineral mining firms, it would also provide a geographical reason for downstream component manufacturers to set up in the UK. Regionally, the UK finds itself in a race against the European Union to develop a midstream for the critical minerals supply chain to provide security of supply for its downstream industries

In this space we are blessed with two world class institutions. Less Common Metals in Ellesmere Port and the Clydach Refinery in Wales. Both will play central roles in the UK's ability to deliver the ten-point plan.

Government narrative to date, exemplified by the recent Wilton Park meeting, centred around the potential for the circular economy to deliver a secure supply chain of critical minerals to the UK. Recycling company Hypromag in Birmingham and Techmet's investment into Li-Cycle are evidence of what can be done towards this potential. However, a circular economy also needs a developed midstream domestically,, otherwise our critical minerals will be sent offshore to be fed back into the supply chain.

One area the UK can champion is in the developing Environment, Social and Governance (ESG) space. There is little point of trying to develop a greener economy if the supply chain that supports it is not ESG compliant. Circular is a world leading ESG and carbon tracking technology company. Their system is capable of tracking carbon footprints of the minerals in each product as they journey across the world. Traceability of our supply chain will be key to the UK being seen as a champion of responsibly sourced minerals. In addition to world leading traceability, the UK also has a world leading consultancy sector. Companies like Minviro are developing life-cycle assessment practices to minimise environmental impact in extraction, and consultants like SRK Consulting are world renowned for their services which include ESG and mine closure.

The UK has historically been a global leader in mining.. Part of the UK's continued contribution to mining comes from our globally recognised mining universities such as Camborne School of Mines,

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<sup>6</sup> <https://cornishlithium.com/company-announcements/cornish-lithium-releases-globally-significant-lithium-grades/>

<sup>7</sup> <https://www.spglobal.com/platts/en/market-insights/latest-news/electric-power/091620-china-continues-to-dominate-global-ev-supply-chain-bnef>

University of Exeter; Imperial College London; University of Dundee; and the University of Birmingham. Due to the influence of Camborne there is a saying that at the bottom of every mine in the world you will find a Cornishman. Refining and recycling of critical minerals requires expertise in minerals processing and extractive metallurgy. Unfortunately, courses in these disciplines are being phased out in UK universities, at the very time that graduates will be needed to develop of a domestic midstream industry. Government research funding to universities such as Camborne has also created new companies in this space (e.g. Minviro, E-Tech Resources) and should be seen as an avenue for fostering talent, innovation and entrepreneurship.

### **What action is needed to support investment and establishment of UK gigafactories?**

As previously stated, the Capital Expenditure for the development of a Gigafactory can be over £2billion. Eight gigafactories will require approximately £16bn in investment. To convince people to invest this amount will require a number of key factors to be addressed as a means of mitigating risk:

- A secure and long-term supply chain of ESG compliant critical minerals and components.
- Green energy to de-carbonise the battery manufacturing process at scale
- An established and secured downstream market that is not likely to relocate
- ESG compliance being tracked and traced at each stage of the entire supply chain.

The CMA believes that the UK will only attract multiple gigafactories to our shores if we can provide the above before our regional competitors in the EU. There simply are not enough critical minerals in the supply chain leading into gigafactories and enough of a secured market downstream from gigafactories to have too many regional competitors.

The UK Government needs to:

- Secure a supply chain of critical minerals through simplifying domestic exploration and diplomatic support for our global mineral extraction companies
- Develop a strategic midstream to secure supply of critical minerals and provide a guaranteed offtake for our upstream companies
- Improve access to public private finance to ensure financial scale to meet demand
- Hastily develop renewable energy hubs to power both the midstream and Gigafactory sector. Energy in these hubs needs to be provided at a globally competitive price
- Develop a strategy to deliver the ten-point plan and execute it through a dedicated government body instead of having multiple departments involved but not aligned.

### **What should the Government do to ensure that gigafactories have a safe, reliable power supply which meets net zero requirements?**

Work to establish regions of green energy hubs. Only by providing renewable energy at a globally (or at least regionally) competitive price can future UK gigafactories compete with the regional rivals. Presently the UK's only planned Gigafactory, Britishvolt (of whom we are big supporters) are locating in the Humber where they can access cheap hydropower from Europe.

### **What action is needed to support growth of associated power electronics, machines, and drive supply chain, including securing supply of raw materials and material processing?**

The UK can only attract component manufacturers and downstream OEMs in this space at scale ahead of our regional competitors in the EU if we are able to develop more rapidly a secure and ESG compliant supply chain of critical minerals.

To do this the Government needs to find innovative financing methods to provide the significant financial investments that will be necessary to build and operate this supply chain in time.

The UK's critical mineral sector is world class, but this is a global industry that is monopolised. The UK government will need to be a part of a global pact between partner nations (e.g. the Five Eyes) to spread global midstream operations in order to diversify the market. Otherwise, critical minerals extracted globally will either still go to China where operations are cheap and established or to new regional hubs. The UK is therefore in a race against our European neighbours to secure this part of the supply chain on our shores. If we don't it is most likely that our domestic and international mineral extraction companies will send their offtake to Europe that will then secure the following sections of the supply chain.

Domestically, England and Wales have an incredibly complex mineral rights system. Simplifying this system will make domestic exploration for critical minerals, highlighted in the integrated review as a priority, more attractive to early-stage investors.

The new green economy will be built with critical minerals and associated technology metals. Domestically there is a strong negative perception of the industry that is misaligned if society wants to meet Net Zero by 2050. The Government should work with industry and society to improve understanding of the importance of critical minerals in today's economy. For instance, coking coal is necessary for steel. The Government recently receded planning for a coking coal mine in Cumbria because of societal backlash. This means that the domestic steel industry will now need to secure coking coal from abroad resulting in:

- A less secure domestic steel industry
- Greater carbon footprints for internationally transported coking coal
- A decreased ability to ensure ESG compliance of its raw material sources.

Government needs to make sure society understands that if you want electric vehicles, smart phones, advanced computers, satellites, renewable energy you need to have mineral extraction. If we don't do as much as we can domestically,, we lose an opportunity to produce responsibly sourced materials and risk undermining the overall Net Zero ambition and the development of a multi-billion industry.

**The Government has announced £1 billion of funding to support the electrification of UK vehicles and their supply chains. Is this figure sufficient? How should it be split between supply chains and gigafactories?**

As previously outlined the £1bn of funding provided by the government through the Automotive Transformation Fund and the Faraday Battery Challenge is welcomed but is not nearly enough to deliver the UK's electric vehicle ambitions set out in the ten-point plan. There are stages of financing the entire supply chain and each require different levels of capital.

- Feasibility studies and TRLs 1-4
- Capital Expenditure and development
- Scalability

These investments can range from a few million for R&D to billions for a single project.

**The £1 billion Net Zero Innovation Portfolio will focus on research into low carbon technologies. What proportion of this funding should be directed towards battery electric vehicle research? What areas should ARIA target in distributing funding for high-risk, high-reward research into battery electric vehicles?**

ARIA should focus on funding TRLs 1-4 and allow the DER, Faraday Battery Challenge and the Advanced Propulsion Centre to invest greater amounts into TRLs 5-6

To meet the finances required the Government should develop Public Private Partnership funding schemes; this will be to the only way to raise enough finance (The Government is already engaged with one of our founding members TCM on this)

**What steps should be taken to ensure the UK workforce has the necessary skills to staff gigafactories and their supporting supply chains?**

The UK has a world class academic sector. The Government should support the growth of this. For instance, Camborne School of Mines, University of Exeter is world renowned for its mining education, yet it had to suspend its Mining Engineering undergraduate course<sup>8</sup>. The role of critical minerals as the building blocks of the future economy should be taught in schools and paired with greater social exposure to their importance. This will help to increase graduate numbers and re-open courses like the University of Birmingham's previously well-respected mineral processing courses. Otherwise, a lack of understanding of where things come from and a negative perception of the minerals sector will deter young people from becoming this workforce of the future.

**What measures should the Government take to ensure that minerals for battery electric vehicles are sourced in a responsible way?**

The Critical Minerals Association is preparing a report to address this question in more detail. This can be shared with the Committee in the coming months. There are a number of areas in which the UK can influence the responsible sourcing of minerals. These include Finance, Innovation and Policy/Legislation.

The UK is the global leader in mining finance and the government should continue to ensure that London maintains its global position. This is important as financial institutions are increasingly setting ESG standards. This was highlighted by the Church of England who used their financial weight to create global standards for mining tailings dams. The London Metals Exchange (although Chinese owned) also continues to play a role in ensuring standards are met within the metals industry globally. The UK could leverage reforms to the City of London to enhance access to capital for ESG compliant critical mineral companies and investors, both national and international, but would have to ensure that such measures would not reduce London's competitiveness.

With world leading UK companies working on ESG, such as SRK Consulting, Satarla, Circular and Minviro the UK government should be working with industry to develop an equivalency based ESG compliance rating system. This should be developed through a multistakeholder forum with representatives from industry, academia, investors, associations, etc.

**What action can Government take to support growth of secondary markets to extend lifetime use of EV batteries?**

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<sup>8</sup> <https://cornishstuff.com/2020/09/04/camborne-school-of-mines-pauses-entry/>

The government should be helping to secure the immediate domestic market for lithium-ion batteries first. Recycling them through companies such as Li-Cycle should be a requisite. Changing the definition of electronic waste as well as ensuring that recycling schemes are more readily available to society.

It is important for the Government to create incentives for the growth of the secondary market. As this is a complex sector, we recommend that the Government establishes an Industry led forum to bring together critical minerals producers, manufacturers, waste operators and funding agencies such as Innovate UK to discuss circular opportunities for retaining critical minerals in the UK economy. We can support with guidance for this.

**What steps should be taken to ensure that EV batteries are recycled at the end of their lives and not simply sent to landfill?**

Current legislation makes no differentiation for Li-ion batteries within electronic waste and therefore they are captured under the general WEEE rules and regulations for waste management. This is not fit for purpose and as the volume of Li-ion batteries within WEEE increases, the issue of potentially highly hazardous Li-ion batteries within household and commercial waste will increase.

Without specific legislation for Li-ion batteries, there has been no incentive up to this point for any producer or waste handler to separate Li-ion batteries from the accompanying WEEE.

Insofar as consumer-led recycling efforts, without an incentive (other than the feeling of having ‘done the right thing’) consumer recycling of Li-ion batteries has been almost non-existent. For some (37% according the Ipsos MORI survey), there are concerns over personal data contained on the device, and 29% said that they didn’t know where to recycle old tech.

A large part of the reason for this lack of action to recycle Li-ion batteries is that at present there is simply no UK-based solution to recycle this Li-ion battery waste. If Li-ion batteries are collected at all (most remain in consumers’ cupboards, drawers, lofts etc), and it is not able to be refurbished, the majority of it is sent to Europe for treatment by inefficient, polluting, pyrometallurgical waste treatment facilities. This is very costly, and the cost is required by law to be borne by the producers of the devices. When considering this, one begins to understand how producers of electronics and their Li-ion batteries may not be properly incentivised to recycle.

In order to legally recycle batteries, an operator requires a waste permit under the Environmental Permitting Regulations 2016 (other similar legislation applies in Scotland and Northern Ireland). Adding waste codes to a permit involves a check from the CA to ensure that the operator has an environmental management system and the technologies to capture some emissions (under legislation geared to protect the environment) but is not an onerous task. Landfilling or incinerating automotive batteries and industrial batteries is illegal, however sending them overseas is not (with authorisation from the CA).

In light of this the CMA proposes that a specific sector guidance note for batteries be written by the UK Competent Authorities (normally authored by the Environment Agency in England) setting out the requirements of a waste battery treatment installation.

We are happy to discuss our other recommendations on this, which are:

- Establish a working group or committee to review waste legislation in the UK as a country no longer part of the EU against countries in and beyond the EU, and produce a report with recommendations for consolidation and augmentation the UK waste statute book.

- Review the Transfrontier Shipment of Waste legislation in light of the UK's new situation, and add more granularity to enable recyclates to be responsibly exported to treatment facilities overseas following a thorough and transparent due diligence process.
- Establish a framework similar to the Streamlined Energy and Carbon Reporting scheme to require UK registered large undertakings to disclose the quantities and types of wastes generated by the organisation annually. This will facilitate cross pollination of waste producers with recycling or re-processing facilities.
- Review the procedure and criteria for evaluation of the "end of waste" (EoW) classification for electrical and electronic equipment, batteries and other critical mineral containing waste streams, to enable more materials to achieve EoW quicker and cheaper, retaining the materials' value.

*May 2021*