The Honorable Bruce Westerman, Chairman
Natural Resources Committee
1324 Longworth House Office Building
Washington, DC 20515

The Honorable Raul Grijalva, Ranking Member
Natural Resources Committee
1332 Longworth House Office Building
Washington, DC 20515

The Honorable Paul Gosar, Chairman
Oversight and Investigations Subcommittee
Natural Resources Committee
1324 Longworth House Office Building
Washington, DC 20515

The Honorable Melanie Stansbury, Ranking Member
Oversight and Investigations Subcommittee
Natural Resources Committee
1332 Longworth House Office Building
Washington, DC 20515

Dear Chairman Westerman, Ranking Member Grijalva, Chairman Gosar, and Ranking Member Stansbury:

I write on behalf of the Cobalt Institute noting that your Committee conducted hearings last week to examine the critical minerals supply chain. The Cobalt Institute is a global trade association composed of producers, users, recyclers, and traders of cobalt, and our members include companies in the US and North America.

Cobalt is vital for lithium-ion batteries as used in our phones, computers, and electric vehicles. It is also essential for defense and aerospace applications, for example through the production of corrosion-resistant super alloys, and well as in magnets, wear-resistant tools, high-strength steel, pigments and coatings, and as a catalyst for the desulfurization of oil.

Summary

In the coming decade, the cobalt value chain, batteries and green technologies will be a major driver of growth and job creation in the United States. With the right conditions for industry, the US has the potential to be a leader, securing market share and creating resilient supply chains based on successful home-grown businesses. This will only happen with early, decisive actions, taken in cooperation with international partners. Areas and regions that are first movers will be well-placed to benefit from the

industry's growth. The Cobalt Institute is a leading authority on the cobalt industry and can support understanding of the industry and the opportunities that exist.

In terms of the topics being explored by the Committee.

On diversification, the Democratic Republic of the Congo (DRC) will remain an important source of cobalt. Its government has indicated its eagerness to work closely with the United States and develop "win-win" partnerships on the supply of critical minerals, including investment in mining, processing, refining and infrastructure. Diversification is possible, with the world's second largest cobalt reserves being in Australia, and large reserves being available in Canada, Indonesia, the and the Philippines. Cobalt is typically mined as a byproduct of copper and nickel mining. Additionally, cobalt is highly recyclable and – with the right policies – the United States can establish a largely circular economy for cobalt.

On **human rights:** Conditions at artisanal and small-scale mining (ASM) sites in the DRC are generally poor. The ASM cobalt sector is largely informal and connected to some very negative impacts including highly hazardous working conditions, gender discrimination, unfair trading practices, and, in certain instances, child labor. ASM remains a business reality in the Congolese cobalt supply chain and cannot simply be shut down. Cutting ASM out of the cobalt supply chain is neither feasible, due to the interwoven nature of the cobalt supply chain, nor desirable from a development perspective. Rather than excluding the ASM sector from markets, a truly just transition would bring artisanal workers and communities along by promoting formalization, capacity building, professionalization of mining techniques, and fair-trading practices, among other drivers to improve outcomes for ASM communities.

Diversification

There is enough cobalt for the US to achieve a resilient long-term supply of cobalt, albeit it also needs to take steps to ensure it can continue to access these resources. Globally, new cobalt streams can be brought online in a number of ways, including undeveloped mining assets, extracting cobalt from tailings sites, recycling, and – assuming it can be done sustainably – nascent exploration of deep-sea resources (where there is estimated to be 120m tons of cobalt, compared to 8.3m on land[1]). While the US does have exploitable cobalt reserves, there will remain a need to source cobalt by other means.

Lithium-ion batteries will be the main driver of demand for cobalt over the next decade. This growth is expected to be significant, primarily driven by the increased use of electric vehicles. While there are many alternative cathode chemistries available for electric vehicles, none can match the range, performance, durability, and sustainability of those containing cobalt, which is why they have been the preferred technology choice for manufacturers.

It is possible to achieve increased diversification of supply chains for cobalt, but there will remain a need to source from the Democratic Republic of the Congo (DRC). Therefore, it is important for the US to engage in the DRC and invest in it as well at the same time as seeking partnerships outside of the DRC. The recently signed Memorandum of Understanding is a step in the right direction. The DRC recently outlined plans to secure more of the battery value chain, including refining and cathode manufacturing, domestically. There is an opportunity for the US to support and benefit from this.

One advantage cobalt-containing chemistries have versus some other cathode types is their high recyclability. The US can take advantage of this if it plans ahead. Cobalt is a valuable metal, and this

[1] United States Geological Survey, Mineral Commodity Summaries 2023 - Cobalt.

makes cobalt-containing batteries economically attractive for recyclers. Cobalt is also highly recyclable from cathodes (90%+) and endlessly recyclable, helping used batteries be efficiently transformed into new batteries, while reducing the need for primary cobalt. It's worth nothing that alternative cathode chemistries may also use critical minerals but without the ability to be well recycled. Recycling rates have doubled through 2010-2021, going from 4% to 9% in ten years. Recycling is expected to continue to rise especially due to new technological innovations that will come onstream. It is expected to reach 20% of the total cobalt supply in 2030[2].

However, whilst recycling can play an important role in the medium term, there will also be a need to use primary cobalt in the coming years. Reserves of cobalt in the DRC constitute about 48% of all global reserves; Australia has the second largest (18%), with Indonesia third (7%). Significant reserves also exist in Canada, Madagascar, and the Philippines. Diversification is therefore achievable.

As with many industries, refining of cobalt is currently concentrated in China (72%[3]). Cobalt refining does take place in developed Western economies, and there is the potentially for this to be ramped up if there is a political desire to do so. The second largest refining country is Finland albeit at only 8% of global supply and Canada at 4%[4]. The DRC recently outlined plans to try to secure more of the battery value chain domestically – including domestic refining of cobalt and cathode production – to secure more value addition from their natural resources. This plan will require investment, both in facilities themselves but also in associated infrastructure, and the US is well-placed to support them.

It is also important to note that batteries can be used for years once manufactured. This means supply chain fluctuations would likely be more of an industrial concern than a consumer one.

We suggest a number of ways to achieve stable long-term cobalt supplies. This includes broad mining capacity (DRC, rest of world, and domestic) as well as investment in domestic mining capacity and exploring possibilities for sea-based resources.

Below are some specific policy recommendations for each of these, the totality of which will contribute significantly to supply chain resilience:

1. **Domestic mining** – the US is unlikely to be self-sufficient for cobalt from its own land-based reserves however it does have reserves that it can exploit, and this can certainly support supply chain resilience.
2. **Democratic Republic of the Congo** – the current administration in the DRC has a reasonable relationship with the US and is keen to secure economic growth from its natural resources. There is an imperative on the US to engage proactively with its government, to support its ambitions and to make strategic investments in projects and infrastructure. This would help the US secure access to cobalt whilst also creating additional supply. It should be a key part of its international engagement.
3. **Invest outside the DRC** – more mining capacity needs to be developed in the next decade to meet the expected demand for cobalt. US and Western companies can make those investments across the world in order to ensure long-term stable access to cobalt. The US Government might choose to make these investments a strategic priority, especially in countries like Australia and Canada.

[2] The Global Cobalt Socio-Economic Analysis (SEA), Cobalt Institute / Wood Mackenzie, 2021 (can be made available on request)
[3] Wood Mackenzie
[4] ibid

4. **Recycling** – a circular economy for cobalt can be established, although the main barrier currently is collection rates for used batteries. Policy mechanisms could support the collection and recycling of end-of-life batteries. This will take time to create, so primary materials will be needed until a critical mass of recycled content is achieved. The EU has already done work on this via its proposed Battery Regulation.

There is also the opportunity for the US to support investment in cobalt refining and processing capacity. This can be done profitably in Western nations but tends to have migrated to China where the economics have typically made more sense for companies. There is notably also a trend towards the co-location of the electric vehicle supply chain – vehicle manufacturing, battery production and cathode production – which means having a robust value chain for cobalt creates synergies for the whole green economy. Therefore, having processing and battery manufacturing capacity is a catalyst for competitive electric vehicle manufacturing.

Human rights

The majority of all cobalt mined in the DRC comes from industrial mines that are mostly operated by large or global companies. Some 12% of DRC supply is estimated to come from artisanal and small scale mining (ASM)[5], although estimates are difficult to make and can vary between 10-20%. Responsible mining practices is a priority for the cobalt industry. The mining industry provides the resources necessary for creating and developing modern materials and enabling technological progress and, as a responsible industry, has also provided substantial benefits including economic advantages, environmental stewardship, health and safety standards, social welfare, infrastructure, education and training, alternative livelihoods and human rights awareness.

We acknowledge that conditions at ASM sites generally are poor. The ASM cobalt sector is largely informal and connected to some very negative impacts including highly hazardous working conditions, gender discrimination, unfair trading practices and in certain instances child labor.

The production of cobalt from artisanal sites in the Congo represents the second-largest cobalt-mining sector in the world after industrial production in the DRC. Cobalt extraction through ASM therefore is an important source of cobalt and an important development opportunity for the DRC, on the condition that responsible practices can be established.

ASM remains a business reality in the Congolese cobalt supply chain and cannot simply be shut down. Cutting ASM out of the cobalt supply chain is neither feasible, due to the interwoven nature of the cobalt supply chain, nor desirable from a development perspective. Instead, companies committed to setting up responsible cobalt sourcing practices must consider how to take responsibility for addressing the severe practices that blemish the ASM sector.

The Cobalt Institute advocates on the need to move forward mindful of the need for a green, equitable and just transition. Rather than excluding the ASM sector from markets, a truly just transition would bring artisanal workers and communities along by promoting formalization, capacity building, professionalization of mining techniques, and fair-trading practices, among other drivers to improve outcomes for ASM communities. Failure to do so risks amplifying the existing inequities that have exacerbated the climate crisis. It also drastically reduces the ability of downstream companies,

[5] Cobalt Institute, State of the Market report (produced by CRU), 2021

particularly those subject to ever more stringent human rights due diligence legislation and import bans, to source artisanal cobalt at all without risking significant penalties.

The Cobalt Institute advocates for standards that reflect the unique needs of the ASM sector and that are aligned with international frameworks such as the UN Guiding Principles on Business and Human Rights and the OECD Due Diligence Guidance. This must be accompanied by the recognition from downstream users, and indeed regulators, that these cannot be achieved overnight and that there must be upfront investment and capacity building to support sites to progressively meet these standards.

Addressing deep-rooted challenges that hinder the progress of the ASM cobalt sector is not the sole responsibility of any individual company. Only by working through a multi-stakeholder approach with key actors in the supply chain, globally and in the DRC, including the government, cooperatives and concession holders, civil society, workers, as well as companies further up the value chain, will effective systems that promote responsible cobalt practices be developed. Coupled with standards, is the need to address the root causes driving some of these severe practices through multi-stakeholder approaches.

There are several initiatives already set up to with the objective of achieving formalization of the ASM community and eradication of child labour, which the CI is engaged with. However, although there has been some effort recently for the initiatives to coordinate amongst each other, and particularly through the RMI's creation of an ASM Coordination Dialogue Group, it is hard to get access to the data to demonstrate the collective impact they are having on the ground. We therefore call for more transparency and disclosure of these efforts and common metrics to help us to demonstrate tangible progress to stakeholders and the country itself.

Key initiatives and partners include, among others:

- The Fair Cobalt Alliance (FCA)
- Responsible Minerals Initiative (RMI), which is developing its ASM Cobalt Criteria (formerly spearheaded by the Global Battery Alliance's Cobalt Action Partnership). It also convenes an ASM Coordination Dialogue group.
- The Entreprise Générale du Cobalt (EGC)
- Cobalt For Development (C4D)
- Global Battery Alliance
- Pact
- OECD
- UN Global Compact
- Responsible Batteries Initiative
- Copper Mark
- Better Mining
- Drive Sustainability
- Afrewatch
- SARW
- US Department of Labor
- EU DG for International Partnerships (DG-INTPA)
- ILO
- Project COTECCO

The political and legal context has been challenging and impeded progress to making positive changes on the ground. The Cobalt Institute advocates for the DRC Government to be clear and coherent on its

commitment to progress the formalization of the ASM cobalt sector. This in our view is key to instilling greater confidence amongst downstream players and financial institutions to invest in formalization efforts as well as in other ambitious plans the Congolese Government has to retain more value in-country through the development of a local battery value chain.

The Cobalt Institute believes that the solution to ASM governance must be on Congolese terms, in accordance with Congolese law, and in line with existing formal and informal governance frameworks, at national, provincial, and on-the-ground levels. Congolese agency must be a key part of the discussion.

The Cobalt Institute is keen that all international actors handling matters relating to ASM acknowledge Congolese frameworks and institutions already involved in this issue, including – but not exclusive to – the following:

- Clauses in the Mining Code covering ASM, such as stipulations on *Zones d'Exploitation Artisanale* (ZEAs) or requirements around cooperatives.
- The *Service d'Assistance et d'Encadrement de l'Exploitation Minière Artisanal à Petite Echelle* (SAEMAPE), the oversight body charged with improving conditions on ASM sites.
- The *Entreprise Générale du Cobalt* (EGC), with the mandate to manage formalized ASM sites, and which has staff, equipment, and an established purchaser, albeit without ZEAs on which to operate, and with its legal monopoly in question.
- The *Autorité de Regulation et de Contrôle des Marchés de Substances Minérales Stratégiques* (ARECOMS), with the mandate to set regulation and standards in the artisanal sector, albeit as yet not operational.
- The *Centre d'Expertise, d'Evaluation et de Certification* (CEEC), charged with certifying the origin of mined material.
- The Musompo trading centre of the Lualaba provincial government, the management of which is subcontracted to Sud South, aimed at ensuring traceability and improved standards in the trade of ASM cobalt.

The Cobalt Institute recognises – and communicates clearly to our partners – that the Congolese government is willing and able to work with large scale miners (LSM) and ASM operators and wants to welcome further operators and Western investment.

The Cobalt Institute acknowledges the existing regulatory frameworks on community development alongside LSM, which provide substantial volumes of finance from LSM operators towards local development outcomes. These include, but are not limited to:

- The requirement that mining firms implement a commitment register (*cahier de charges*)
- Community endowment (*dotation*)
- Local government share of royalties (*redevance minière*)
- The *Fonds Minier pour les générations futures (Fomin).* This receives funds from the royalties.

The Cobalt institute acknowledges the existing informal norms for governing ASM operations developed by ASM actors themselves, which rely on informal contracts and structured informal organizations.

Concluding remarks

The Cobalt Institute advocates a coordinated approach to critical minerals sourcing, based on using US foreign policy and labor standards to raise standards, whilst also supporting security of supply. Political engagement with sourcing countries will create "win-wins" for the US, that include access to critical

minerals and ensuring US-standards of worker safety and protection are ensured. This will also bolster the competitiveness of US companies and industries in fast-growing sectors.

On artisanal mining, industry is keen to work with the United States government and Congress to address concerns and ensure the highest standards of human rights are maintained, including for example through supply chain transparency initiatives.

We look forward to the opportunity to be a resource to you and your staff and thank you for your kind consideration of this communication.

Sincerely,

Caroline Braibant

Interim Director General